



Department of Commerce



Commerce Administrative Management System (CAMS)

CAMS Navigator Menu Installation Instructions and Users Guide

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CAMS Support Center

Version 1.9

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1. Overview

The Commerce Administrative Management System (CAMS) Support Center (CSC) developed a dynamic navigation menu for CAMS. The navigation menu and supporting maintenance screens were developed in Oracle Forms 6i as a Graphical User Interface.

Starting from DW Release v1.163.0.0, CFS Data Warehouse revised the navigator menu system base on the codes delivered in CFS v1.161.0.2 and described in 'CAMS Navigator Menu Installation Instructions and Users Guide', version 1.7, October 16, 2002. Identical functions, design features, and future releases of the CAMS Navigator Menu will be maintained in both systems, including installation procedures, scripts, database structures of tables, views, and other supporting objects. With the table-driven design strategy, the two systems maintain its own independency and security by running in two different Oracle instances on separate servers. The contents of the records in certain tables such as role names, user login names, and passwords may be different and a few validations are only required in the CFS system but not applicable in the CFS Data Warehouse. This document addresses the differences and adds specific notes for the CFS Data Warehouse installation in separate sub-sections.

1.1 Oracle Forms 6i Migration Notes

1.1.1 Important Pre-Implementation Precautions

The following points should be noted before implementing the Oracle Forms 6i version of CAMS:

1.1.1.1 Only the client-server version of the Navigator Menu is being released in this phase. The web-based version of the Navigator will be provided in a later release.

1.1.1.2 The functionality from the MSI forms (msi001.fmx through msi004.fmx) was incorporated within the Navigator. Therefore, these forms are not included in the migration from Forms 4.5 to Forms 6i.

1.1.1.3 The CSC does not currently have the electronic signature devices used by some Census applications (e.g., Travel Management Information System Plus). Therefore, we were unable to test the Oracle Forms 6i digital signature library provided by Census.

1.1.1.4 If a bureau must revert back to the Oracle Forms 4.5 version of code after running the installation scripts, they must first run the NAVUNDO.TBL script. Otherwise, there is a naming conflict between a CAMS_MENU table and a CAMS_MENU package causing the MSI screens to fail.

1.1.1.5 The recommended desktop configuration under which to operate CAMS under Oracle Forms 6i is as follows:

- IBM-compatible personal computer Pentium P3, 300 mHz Processor or Above
- 64 MB RAM
- 175 MB of Hard Drive Space for Oracle V6i Runtime
- 50 MB of free/additional Hard Drive Space to run the CAMS application
- 15" Super VGA Color Monitor set at 800 x 640 Resolution (prefer a 17" Super VGA Color Monitor set at 1024 x 768)

- Windows 95/98/NT
- Oracle Developer 6i Runtime (with Patch 4 installed)
- SQL*Net 8.0.6.0.0
- 101 Enhanced Keyboard
- Mouse

1.1.1.6 If you are using the web-based version of the software, you also need:

- Netscape Navigator Version 4.08 or Microsoft Internet Version 5.01
- Oracle J-Initiator Version 1.1.8.7

1.1.1.7 The recommended Network File Server should have the following software installed:

- For client/server environment, need to have a local area network (ex. Novell, Windows NT) with CAMS programs installed
- Oracle Forms Version 6.0.8.13.0
- Oracle Reports Version 6.0.8.13.1

1.1.1.8 The recommended Host Database Server should have the software installed:

- UNIX Version 4.0.E
- Oracle Relational Database Management System Version 7.3.4.4
- Oracle SQL*Net Version 2.3.4.0.2

1.1.1.9 The recommended Web Application File Server should have the following software installed (web server):

- Sun Solaris 8
- Oracle Internet Application Server (9i) 1.0.2.2
- Oracle Forms and Reports Server 6i SW (patch 5A) – (with Secure Sockets Layer Module)
- SQL *Net 8.0.6.0.0
- CAMS GUI Forms 6.0.8.14.2
- CAMS GUI Reports 6.0.8.14.2
- * For an illustration of what configuration the CSC used for testing, please see Figures 11 and 12.

1.1.1.10 Users may notice a slightly different interface on the Runtime Parameter Form. Previously, this form contained four tabs at the top: Previous, Next, Run Report, and Cancel. These have been replaced by the following icons:

-  Previous
-  Next
-  Run Report
-  Cancel

Cut, copy, paste, and help icons also appear on this type of form and the menu bar also includes a new option called “View”. The View menu option contains the “Previous Page” and “Next Page” options.

NOTE: *Included on the CD is a script called ACTLVIEW.TBL. This script, although not a part of the Navigator installation itself, is a script that needs to be run as a pre-requisite to compiling the esiglib6.pll library that is included in this delivery.*

1.1.1.11 All Oracle forms implemented in the CFS Data Warehouse have been developed using Oracle Forms 6i, therefore no migration from Oracle Forms 4.5 or earlier version is needed.

2. Installation Instructions

2.1 CD-ROMS

All software and application files required to implement the Oracle 6i version of CAMS will be provided on two CD-ROM disks.

2.1.1 CD-ROM #1

The first CD contains the Oracle Developer 6i Runtime software (with Patch 4). The software on this CD should be installed on each desktop that will be running the Forms 6i version of CAMS (or installed centrally if using CITRIX).

This CD contains two files (D2k-6i-patch4.exe & Rem_oracle.exe) that need to be installed. Refer to the following instructions for the installation procedures.

2.1.1.1 D2k-6i-patch4.exe Installation

This file installs Oracle Forms and Reports Runtime Version 6i with patch 4 on your PC.

To install, perform the following steps:

- In the Windows Explorer, click on the CD drive.
- Double-click the 'D2k-6i-patch4.exe' program from the right panel of the Explorer. This will begin the installation process.
- During the installation process, if the system prompts/asks you if you want to overwrite any files, click 'Replace All'.
- Click the Windows Start button, click on 'RUN..', enter 'Regedit', and click 'OK' to open the Windows Registry Editor.
- Click on 'HKEY_LOCAL_MACHINE', click on 'SOFTWARE', and click on 'ORACLE'. In the right panel double-click on the parameter called 'TNS_ADMIN' and change the text to the location of the TNSNAMES.ORA file (i.e. c:\orawin8\network\admin).
- In the left panel, click on 'HOME2'. In the right panel, double-click on the parameter called 'TNS_ADMIN' and change the text to the location of the TNSNAMES.ORA file (ie c:\orawin8\network\admin).
- Close the Windows Registry Editor.
- Reboot the machine.

2.1.1.2 Rem_oracle.exe Installation

This file removes all the Windows Registry folders for all the existing Oracle products from your PC.

****Use only if you want to remove all the existing oracle products from your PC (for example, Forms 4.5). This is NOT RECOMMENDED, because Forms 4.5 should remain on the PC for an interim/transition period to allow for a fallback option if V6i does not work properly. ****

To remove, perform the following steps:

- In the Windows Explorer, click on the CD drive.
- Double click the 'rem_oracle.exe' program from right panel of the Explorer.
- During the removal process, if this program prompts/asks you to reboot the PC, click 'No'.
- In the left panel, click the 'C:\WINDOWS\Start Menu\Programs' directory and highlight and delete all the folders with names starting with 'Developer 2000', 'Discoverer 2000', and 'Oracle'.
- In the left panel, click the 'c:\' drive. In the right panel, highlight and delete the orawin95, orawin8, and oracle8 directories (if they exist).

2.1.2 CD-ROM #2

The second CD contains scripts (to install the new Navigator capability), several Oracle libraries, and the migrated CAMS forms. The files on the second CD are stored under three directories and should be installed in the following order:

2.1.3 Scripts

Contains 15 scripts to install the Navigator menu capability as well as 1 script (ACTLVIEW.TBL) to create a view necessary to support the compilation of the esiglib6.pll library (there are no prompts associated with this script). The CAMSLOCK.TBL script should be run first followed by the NAVDATA2.TBL script. (These 2 scripts call the other 13 scripts.) Refer to Section 2.3, Navigator Implementation Scripts, for instructions on how to respond to the prompts within these scripts.

2.1.4 Oralib

Contains 4 Oracle internal libraries. These should be copied to the c:\orawin8\bin directory and compiled.

2.1.5 Forms

Contains Oracle 6i version (Patch 4) of the CAMS application libraries, forms, and reports. Refer to Version 153 Delivery Document for specific instructions including the requirement to compile the PL/SQL libraries first.

2.1.6 CFS Data Warehouse

Use the second CD-ROM disk delivered in CFS v1.161.0.2, October 16, 2002 for scripts, Oracle libraries, and forms related to the navigator menu system before applying the changes delivered in DW v1.163.0.0. Refer to 'CFS Data Warehouse Release Notes for DW v1.163.0.0' and 'CFS Data Warehouse Administrators Manual' for installing data warehouse applications.

2.2 Oracle Encryption

For client-server applications, no action is required. Password encryption is automatically handled by SQL*Net (with version 2.1.6 and above).

The CSC is currently testing encryption for web-based applications. Information will be provided with the release of Forms 6i web-based code (i.e., the Commerce Purchase Card System).

2.2.1 CFS Data Warehouse

The CFS Data Warehouse currently only provides client-server applications.

2.3 Navigator Implementation Scripts

In order to install the CAMS Navigator, the database administrator would run the following two scripts with the specified account.

CAMSLOCK.TBL Creates a special Oracle account (CAMSLOCK) to support the login process. This routine will only be executed once and does not require any responses to the prompts. This script must be executed as the 'SYS' user account.

NAVDATA2.TBL Creates the public synonyms, triggers, packages, procedures, views, tables, and sequences required by the CAMS Navigator and administration screens. This script must be executed as the 'CAMSADM' user account.

An optional third script has been delivered, **NAVUNDO2.TBL** that drops the database objects created for the Navigator Menu application. This should only be run if you wish to roll back to the original menu.

2.4 CAMSLOCK.TBL

The CAMSLOCK.TBL routine must be run first. This script must be executed as the 'SYS' user account. This script creates a unique user account to support the login process. This account is used to sign into the Oracle database to query the status of the user attempting to log in and record log in attempts. CAMSLOCK.TBL can be accomplished by signing on to Oracle SQL*PLUS and entering the command @camslock.tbl.

2.4.1 CFS System

The script will prompt you to enter schema owner name and role names. You may accept the default values shown in parentheses or provide a different database Role Name(s).

```
Enter the schema owner Name (CAMSADM):  
Enter the Role Name(s) for Select Privileges (CFS_SEL):  
Enter the Role Name(s) for Update Privileges (CFS_DBA):
```

2.4.2 CFS Data Warehouse

The script will prompt you to enter schema owner name and role names. Enter the following values when answering the prompts, as shown in the following example:

```
Enter the schema owner Name(CAMSADM): ATADM  
Enter the Role Name(s) for Select Privileges (CFS_SEL): CAMS_BASIC  
Enter the Role Name(s) for Update Privileges (CFS_DBA): CFS_GEN
```

2.5 NAVDATA2.TBL

The user may then run the NAVDATA2.TBL script. **To run this patch, you must have the following files loaded into your directory where you are running the patch.
cams_nav.con, cams_nav.fnc, cams_nav.ind, cams_nav.pkb, cams_nav.pks, cams_nav.prc,
cams_nav.sql, cams_nav.sqs, cams_nav.tab, cams_nav.trg, cams_nav.vw

2.5.1 CFS System

This script must be executed as the 'CAMSADM' user account for CFS and as the DW owner account if it is for Data Warehouse. This is done by signing on to Oracle SQL*PLUS and entering the command @navdata2.tbl. The following summarizes the prompts and suggested responses associated with the NAVDATA2.TBL scripts.

```
SQL> @c:/navdata2.tbl
```

```
Executed On  
-----  
06-FEB-2001 16:18:51  
connected as CAMSADM@migr  
Executable file: navdata2.sql (03/11/2003 version)  
log file: navdata2_migr.log
```

The script will first prompt you to enter Schema owner name. The default is CAMSADM. You may accept the default shown in parenthesis if it is correct or provide a different schema name.

```
Enter the Schema Owner Name (CAMSADM):
```

The script will prompt you to enter the Menu Role Name for the CAMS Root Role and the CAMS Menu Maintenance role. You may accept the default values shown in parentheses or provide a different Menu Role Name. The CAMS Root Role will grant users complete access to all functions of the CAMS Navigator and administration screens. The CAMS Menu Maintenance Role will grant users access to change any menu item on the CAMS menu tree hierarchy. A user with the CAMS Menu Maintenance Role will not be able to run any of the menu items. To run the menu items, the user must be given that capability via a separate role. Note that the

CAMS Root Role and the CAMS Menu Maintenance role can both be specified with the same name.

Enter a SINGLE MENU ROLE NAME (max 20 chars) for each of the following or press <ENTER> to accept the defaults...

Enter a Menu Role Name for CAMS Root Role (CAMS ROOT ROLE):
Enter a Menu Role Name for CAMS Menu Maintenance (CAMS MENU MAINT):

The script will ask you to verify the Menu Role Names specified. If these are correct, you would press the ENTER key. If they are not, you would select the CTRL-C key to end the installation process.

Please VERIFY the following list...

DESCRIPTION	MENU_ROLE_NAME
1 CAMS Root Role	CAMS ROOT ROLE
2 CAMS Menu Maintenance	CAMS MENU MAINT

If the above lists the correct MENU ROLE NAMES, press RETURN to continue. Otherwise, press CTRL-C to abort...

The script will then prompt you to enter an existing DB_USER_NAME for the CAMS Menu Maintenance Administrator and the CAMS Menu Security Administrator. The DB_USER_NAME must exist in the EMPLOYEE_CONTROL table. There are no defaults for these prompts. The user specified as the CAMS Menu Maintenance Administrator will be granted the CAMS Menu Maint role created in the previous step. The user specified as the CAMS Menu Security Administrator will be granted the CAMS Root Role created in the previous step. The Menu Maintenance Administrator has by default, the privilege for the menu items. That is, they can sort and edit the items. The Menu Security Administrator is the person who can grant users the privilege to run programs.

Enter a SINGLE EXISTING CAMS DB_USER_NAME (from EMPLOYEE_CONTROL) for each of the following prompts.

Enter the DB_USER_NAME of the CAMS Menu Maintenance Administrator: eha
Enter the DB_USER_NAME of the CAMS Menu Security Administrator: kpooton

The script will ask you to verify the information provided. If these are correct, you would press the ENTER key. If they were not, you would select the CTRL-C key to end the installation process.

Please VERIFY the following list...

ROLE	EMP_NO
1 CAMS Menu Maintenance Administrator:	3
HA, ELIZABETH	

2 CAMS Menu Security Administrator: 3461
POOTON,KEN

If the above lists the correct USERS BY FULL NAME, press RETURN to continue.
Otherwise, press CTRL-C to abort...

The script will prompt you to enter one or more existing database role names to grant Select Privileges, Update Privileges, and to execute GET_EMP_ROLE privileges. You may accept the default values shown in parentheses or provide a different database Role Name(s). The database role provided for the *Select Privileges* should be an existing CAMS role that provides select access to all CAMS tables. The database role provided for the *Update Privileges* prompt should be an existing CAMS role that provides update access to the CAMS tables. The database role provided for the *Execute GET_EMP_ROLE Privileges* should be an existing CAMS role that will allow users access to the GET_EMP_ROLE procedure. This procedure queries the EMPLOYEE_CONTROL table to determine the USER_ROLE from the EMPLOYEE_CONTROL table that should be assigned to the user when they initially log into the system.

Enter ONE OR MORE EXISTING DATABASE ROLE NAMES (comma-delimited) for each of the following or press <ENTER> to accept the defaults...

Enter the Role Name(s) for Select Privileges (CFS_SEL):
Enter the Role Name(s) for Update Privileges (CFS_DBA):
Enter the Role Name(s) for Execute GET_EMP_ROLE Privileges (PUBLIC):

The script will ask you to verify the information provided. If these are correct, you would press the ENTER key. If they are not correct, you would select the CTRL-C key to end the installation process.

Please VERIFY the following list...

Role Function	Role(s)
1 Select Privileges	CFS_SEL
2 Update Privileges	CFS_DBA
3 Execute Privilege on GET_EMP_ROLE	PUBLIC

If the above lists the correct DATABASE ROLE NAMES, press RETURN to continue.
Otherwise, press CTRL-C to abort...

Once all prompts have been responded to, the NAVDATA2.TBL script performs the following actions:

- Renames existing CAMS_ROLES, CAMS_USERS tables to CAMS_ROLES_OLD, and CAMS_USERS_OLD.
- Recreates public synonyms for CAMS_ROLES, and CAMS_USERS tables.
- Creates new database objects.
- Inserts initial entries into the CAMS_MENUS table.
- Inserts entries into the CAMS_ROLES table.
- Creates grants for the Menu Maintenance and Security Administrators as specified in the prompts.
- Inserts entries into CAMS_USERS table.
- Drops obsolete MSI menus from CAMS_ROLE_MENUS and CAMS_MENUS tables.

- Computes statistics on CAMS menu tables.
- Inserts initial entries into the CAMS_CONSTANTS table. This table maintains the security policy parameters. These are initially populated as follows:
 - Method of Running Forms (1=Single Form 2=Multiple Forms) - Default to 2.
 - **Maximum number of common character sequences in a password – Default to 3.**
 - Maximum number of logon attempts before user application lockout – Default to 3.
 - **Minimum number of unique characters in a password – Default to 6.**
 - Minimum password length – Default to 8.
 - Minimum number of days passwords must be unique before reuse – Default to 731.
 - **Minimum number of times passwords must be unique before reuse – Default to 8.**
 - Expiration in days of a password – Default to 30.
 - Number of days before password expiration to show a reminder – Default to 5.
 - **Generate statistics option (0=No 1=Yes) – Default to 0.**
- Creates public synonyms.
- Establishes grants to CAMSLOCK, &&CFS_SEL, &&CFS_DBA, and &&CFS_PUB users.
- For new installations NAVPTCH821.TBL must be run after NAVDATA2.TBL has been run.

2.5.2 CFS Data Warehouse

Scripts NAVDATA2.TBL must be executed after DW_NAV.SQL has been successfully completed. (Refer Release Notes DW v1.163.0.0.doc). To run DW_NAV.SQL, you must connect SQLPLUS as DW owner and type command '@dw_nav.sql'. The script will prompt you for database link name. You may take the default or enter the actual database link name that you used to connect CFS source database.

```
Enter the DBLINK Name(cams.world):
```

The DW_NAV.SQL script will install necessary objects in DW instance that prepare for navigator installation.

The script NAVDATA2.TBL must be executed as DW owner. This is done by signing on to Oracle SQL*PLUS as DW owner and typing the command '@navdata2.tbl'. The following summarizes the prompts and suggested responses associated with the NAVDATA2.TBL scripts when installing in the CFS Data Warehouse.

```
SQL> @c:/navdata2.tbl
```

```
Executed On
-----
30-JAN-2003 11:31:36
connected as ATADM@DWFUNC
executable file: navdata2.tbl (01/08/2003 version)
log file: navdata2_DWFUNC.log
```

The script first prompts you to enter Schema owner name.

```
Enter the schema owner Name(CAMSADM): ATADM
```

The script then prompts you to enter the Menu Role Name for the CAMS Root Role and the CAMS Menu Maintenance role. Press enter to accept the default values.

```
Enter a SINGLE MENU ROLE NAME (max 20 chars) for each of the following or
press <ENTER> to accept the defaults...
```

```
Enter a Menu Role Name for CAMS Root Role          (CAMS ROOT ROLE):
Enter a Menu Role Name for CAMS Menu Maintenance (CAMS MENU MAINT):
```

The script will ask you to verify the Menu Role Names specified. If these are correct, you would press the ENTER key. If they are not, you would select the CTRL-C key to end the installation process.

```
Please VERIFY the following list...
```

DESCRIPTION	MENU_ROLE_NAME
1 CAMS Root Role	CAMS ROOT ROLE
2 CAMS Menu Maintenance	CAMS MENU MAINT

```
If the above lists the correct MENU ROLE NAMES, press RETURN to continue.
Otherwise, press CTRL-C to abort...
```

The script then prompts you to enter an existing DB_USER_NAME for the CAMS Menu Maintenance Administrator and the CAMS Menu Security Administrator. The DB_USER_NAME must exist in the EMPLOYEE_CONTROL table. There are no defaults for these prompts. The user specified as the CAMS Menu Maintenance Administrator will be granted the 'CAMS Menu Maint' role created in the previous step. The user specified as the CAMS Menu Security Administrator will be granted the 'CAMS Root Role' created in the previous step. The Menu Maintenance Administrator has by default, the privilege for the menu items. That is, they can sort and edit the items. The Menu Security Administrator is the person who can grant users the privilege to run programs.

```
Enter a SINGLE EXISTING CAMS DB_USER_NAME (from EMPLOYEE_CONTROL) for each of the
following prompts.
```

```
Enter the DB_USER_NAME of the CAMS Menu Maintenance Administrator: bbechutsky
Enter the DB_USER_NAME of the CAMS Menu Security Administrator: jwang
```

The script will ask you to verify the information provided. If these are correct, you would press the ENTER key. If they were not, you would select the CTRL-C key to end the installation process.

```
Please VERIFY the following list...
```

ROLE	EMP_NO
1 CAMS Menu Maintenance Administrator:	3
BECHUTSKY, BELLA	

2 CAMS Menu Security Administrator: 3461
WANG, JEAN

If the above lists the correct USERS BY FULL NAME, press RETURN to continue.
Otherwise, press CTRL-C to abort...

The script then prompts you to enter one or more existing database role names to grant Select Privileges, Update Privileges, and to execute GET_EMP_ROLE privileges. For CFS Data Warehouse, enter 'CAMS_BASIC' instead of 'CFS_SEL' for Role with select privilege, and enter 'CFS_GEN' instead of 'CFS_DBA' for Role with update privilege, as shown in the following example:

Enter ONE OR MORE EXISTING DATABASE ROLE NAMES (comma-delimited) for each of the following or press <ENTER> to accept the defaults...

Enter the Role Name(s) for Select Privileges (CFS_SEL): **CAMS_BASIC**

Enter the Role Name(s) for Update Privileges (CFS_DBA): **CFS_GEN**

Enter the Role Name(s) for Execute GET_EMP_ROLE Privileges (PUBLIC):

The script will ask you to verify the information provided. If these are correct, you would press the ENTER key. If they are not correct, you would select the CTRL-C key to end the installation process.

Please VERIFY the following list...

Role Function	Role(s)
1 Select Privileges	CAMS_BASIC
2 Update Privileges	CFS_GEN
3 Execute Privilege on GET_EMP_ROLE	PUBLIC

If the above lists the correct DATABASE ROLE NAMES, press RETURN to continue.
Otherwise, press CTRL-C to abort...

Once all prompts have been responded to, the NAVDATA2.TBL script will create and populate menu tables, create synonyms and make proper grants etc.

After successfully execute NAVDATA2.TBL, you must run script DW_NAV_POST.SQL (Refer Release Notes DW v1.163.0.0.doc). To run scripts DW_NAV_POST.SQL, you must connect SQLPLUS as DW owner and type command '@dw_nav_post.sql'. This script will populate the proper values into menu tables for Data Warehouse menus.

2.6 Timeline of Navigator Menu Enhancements

The CAMS Navigator menu was created as a part of the Oracle Forms migration project and was originally delivered to the bureaus with AR 13404 (3-20-01). Since the original delivery, several enhancements and reworks have modified both the Navigator Menu Code and the database objects needed by the navigator menu. The following sections give a brief overview of the changes to the Navigator Menu that have been made since the original delivery.

2.6.1 AR 13564 (4-24-01)

A fix was made to remove the EC_RESTRICT_UPD_TRG trigger. This fix was delivered with database patch PTCH713.tbl. The NAVDATA2 file was modified to incorporate this fix. In instances that already have loaded the Navigator Menu, patch PTCH713.tbl should be run. In instances that do not have the Navigator Menu already loaded, the NAVDATA2 file will be sufficient.

2.6.2 AR 13856 (9-26-01)

This fix dealt with an issue at the Census bureau relating to the forms migration. This fix required database changes; therefore, patch NAVPTCH741.tbl was delivered along with the fix. NAVDATA2 file was modified to incorporate this fix. In instances that already have loaded the Navigator Menu, Patch NAVPTCH741.tbl should be run. In instances that do not have the Navigator Menu already loaded, the NAVDATA2 file will be sufficient.

2.6.3 AR 14071 (2-19-02)

This is the first delivery of a number of enhancements and fixes that have been requested by the Census bureau. These fixes required database changes; therefore, patch NAVPTCH769.TBL was delivered along with the fix. NAVDATA2 file was modified to incorporate these changes. In instances that already have loaded the Navigator Menu, Patch NAVPTCH769.TBL should be run. In instances that do not have the Navigator Menu already loaded, the NAVDATA2 file will be sufficient.

2.6.4 AR 14122 (4-17-02)

This is the second delivery of the enhancements and fixes that have been requested by the Census bureau. This batch included the new import/export functionality. These fixes required database changes; therefore, patch NAVPTCH803.TBL was delivered along with the fix. NAVDATA2 file was modified to incorporate these changes. In instances that already have loaded the Navigator Menu, Patch NAVPTCH803.TBL should be run. In instances that do not have the Navigator Menu already loaded, the NAVDATA2 file will be sufficient.

2.6.5 AR 14145 (06-27-02)

This is the third delivery of the enhancements and fixes that have been requested by the Census bureau. Included in this batch was the new CAMSMMSG form. These modifications required database changes; therefore, patches NAVPTCH821.TBL and NAVPTCH814.TBL were delivered with this AR. NAVDATA2 file was modified to incorporate NAVPTCH814.TBL, but NOT NAVPTCH821.TBL. In instances that already have loaded the Navigator Menu, Patches NAVPTCH821.TBL and NAVPTCH814.TBL should be run. In instances that do not have the Navigator Menu already loaded, the NAVDATA2 should be run, followed by NAVPTCH821.TBL.

2.6.6 AR 14231 (10-16-02)

This is the fourth delivery of the enhancements and fixes that have been requested by the Census bureau. Included in this batch was the new NMDG001 form. These modifications required database changes; therefore, patches CAMSLOCK.TBL, NAVPTCH844.TBL and NAVPTCH871.TBL were delivered with this AR. The CAMSLOCK.TBL patch was modified to incorporate patch NAVPTCH821.TBL from the previous delivery. The NAVDATA2.TBL patch was modified to incorporate NAVPTCH844.TBL, but NOT NAVPTCH871.TBL. In instances that

already have loaded the Navigator Menu, patches NAVPTCH844.TBL and optionally NAVPTCH871.TBL should be run. The NAVPTCH871.TBL patch only removes path and/or file extension specifications from the CAMS_MENU.menu_icon column. This patch should be run unless the administrator is certain that it is not needed. It will make no changes unless path and/or file extension specifications exist in the CAMS_MENU.menu_icon column. In instances that do not have the Navigator Menu already loaded, the CAMSLOCK.TBL patch should be run, followed by the NAVDATA2.TBL patch.

NOTE: Due to the immediate need to deliver some of the enhancements and fixes with AR 14231, the following requested items were in process but not completed in time for delivery:

- Three CAMS usage statistics reports (NMDG100, NMDG101, NMDG102).
- Web-mode issues – Certain web related issues were not resolved. In production environments, web mode should not be used until these issues have been resolved.

2.6.7 AR 13289 (02-11-03)

CSC requested the upgrade of CFS Data Warehouse navigator menu system to synchronize by using the same copy of the latest CFS software, delivered as CFS v1.161.0.2 on October 16, 2002. The implementation has coordinated with the CSC CFS maintenance team to maximize the re-usability of the codes developed earlier but maintain the independency and requirements specific to the data warehouse system. The result is delivered in DW v1.163.0.0 for installing on the CFS Data Warehouse server. It also includes changes to be applied to the separate CFS database server at the same time.

2.6.8 AR 14756 (03-12-03)

The Navigator Menu was enhanced to fully comply with the DOC Policy on Password Management. Several new security parameters were added. A password dictionary was created, and is maintained by a new tab in form MENUSEC.

2.7 NAVUNDO2.TBL (Only if backing out the Navigator menu)

The NAVUNDO2.TBL script is an optional routine that allows the user to drop the public synonyms, triggers, packages, procedures, views, tables, and sequences created for the Navigator Menu application. This script should only be used in an environment where NAVDATA2.TBL has been run OR the original NAVDATA.TBL plus the NAVPTCH741.TBL. It also restores the CAMS_ROLES and CAMS_USERS tables from their backup tables.

2.7.1 CFS System

The NAVUNDO2.TBL script may be executed by signing on to Oracle SQL*PLUS and entering the command @navundo2.tbl. The script is as follows:

```
Connected as CAMSADM@ARCH
Executable file: navundo2.tbl (03/05/2003 version)
Log file: navundo2_ARCH.log

Enter the Schema Owner Name (CAMSADM):
*** ARE YOU SURE you want to run NAVUNDO2.TBL and remove ALL Navigator Menu objects?
***

Enter YES to continue. Otherwise, press CTRL-C to abort... yes

PL/SQL procedure successfully completed.

Continuing...
```

2.7.2 CFS Data Warehouse

After executing the NAVDATA2.TBL script, the scripts NAVUNDO2.TBL and DW_NAV_UNDO.SQL allows you to backing out the changes and returns to the previous state of the CFS Data Warehouse navigator menu system. It prompts you first to enter the CFS Data Warehouse schema owner name and then continues.

```
Connected as ATADM@DWFUNC
Executable file: navundo2.tbl
Log file: navundo2_DWFUNC.log

Enter the Schema Owner Name (CAMSADM): ATADM

*** ARE YOU SURE you want to run NAVUNDO2.TBL and remove ALL Navigator Menu
objects? ***

Enter YES to continue. Otherwise, press CTRL-C to abort... yes

PL/SQL procedure successfully completed.

Continuing...
```

After executing the navundo2.tbl, you need to run dw_nav_undo.sql to drop the changes that made by script dw_nav.sql.

2.8 Navigator Database Objects

At the completion of the NAVDATA2.TBL script, the database objects necessary to support the Navigator Menu application will have been created. A copy of the database schematic follows the listing.

OBJECT_TYPE	COUNT(*)
-----	-----
INDEX	28
PACKAGE	2
PACKAGE BODY	2
PROCEDURE	1
SEQUENCE	4
TABLE	17
TRIGGER	35
VIEW	16

Total	86

OBJECT_NAME	OBJECT_TYPE
-----	-----
CAMS_CALENDAR_PK	INDEX
CAMS_LOCK_PK	INDEX
CAMS_MENUC_PARAMETERS_PK	INDEX
CAMS_MENUS_PK	INDEX
CAMS_MENU_AUDIT_TRAIL_PK	INDEX
CAMS_MENU_CODES_PK	INDEX
CAMS_MENU_PARAMETERS_PK	INDEX
CAMS_ROLES_PK	INDEX
CAMS_ROLE_MENUS_PK	INDEX
CAMS_USERS_PK	INDEX
CAMS_USER_FAVOR_MENUS_PK	INDEX
CAMS_USER_ROLES_PK	INDEX
CMS_PK	INDEX
CM_UK_MENU_TITLE	INDEX
CPD_PK	INDEX
FAV_EMP_NO_FK_IDX	INDEX
FAV_MENU_ID_FK_IDX	INDEX
HIST_EMP_NO_FK	INDEX
ORDER_NO_IDX	INDEX
PARENT_MENU_ID_FK_IDX	INDEX
PARENT_ROLE_ID_FK_IDX	INDEX
PARM_MENU_CODE_FK_IDX	INDEX
PARM_MENU_ID_FK_IDX	INDEX
ROLE_MENU_ID_FK_IDX	INDEX
ROLE_NAME_IDX	INDEX
ROLE_ROLE_ID_FK_IDX	INDEX
USER_EMP_NO_FK_IDX	INDEX
USER_ROLE_ID_FK_IDX	INDEX
CAMS_MENU_PKG	PACKAGE
CAMS_MENU_TRIGGER	PACKAGE
CAMS_MENU_PKG	PACKAGE BODY
CAMS_MENU_TRIGGER	PACKAGE BODY

GET_EMP_ROLE	PROCEDURE
CAMS_ACCESS_SEQ	SEQUENCE
CAMS_AUDIT_SEQ	SEQUENCE
CAMS_MENU_SEQ	SEQUENCE
CAMS_ROLE_SEQ	SEQUENCE

OBJECT_NAME	OBJECT_TYPE
-----	-----
CAMS_ACCESS_STATISTICS	TABLE
CAMS_ACCESS_STATISTICS_ARC	TABLE
CAMS_CALENDAR	TABLE
CAMS_LOCK	TABLE
CAMS_LOCK_HISTORY	TABLE
CAMS_MENUC_PARAMETERS	TABLE
CAMS_MENUS	TABLE
CAMS_MENU_AUDIT_TRAIL	TABLE
CAMS_MENU_CODES	TABLE
CAMS_MENU_PARAMETERS	TABLE
CAMS_PASSWORD_DICTIONARY	TABLE
CAMS_ROLES	TABLE
CAMS_ROLE_MENUS	TABLE
CAMS_USERS	TABLE
CAMS_USER_FAV_MENUS	TABLE
CAMS_USER_PASSWORD_HISTORY	TABLE
CAMS_USER_ROLES	TABLE
CLH_BR	TRIGGER
CL_BR	TRIGGER
CMAT_BR	TRIGGER
CMCP_RESTRICT_UPD_BR	TRIGGER
CMP_RESTRICT_UPD_BR	TRIGGER
CM_AUDIT	TRIGGER
CM_INS_AS	TRIGGER
CM_INS_BR	TRIGGER
CM_INS_BS	TRIGGER
CM_RESTRICT_UPD_BR	TRIGGER
CM_UNIQUE_MENU_AS	TRIGGER
CPD_AS	TRIGGER
CPD_BR_INSUPD	TRIGGER
CPD_BS	TRIGGER
CRM_AUDIT	TRIGGER
CRM_CASCADE_DEL_AS	TRIGGER
CRM_CASCADE_DEL_BR	TRIGGER
CRM_CASCADE_DEL_BS	TRIGGER
CRM_INS_AS	TRIGGER
CRM_INS_BR	TRIGGER
CRM_INS_BS	TRIGGER
CRM_RESTRICT_UPD_BR	TRIGGER
CR_AUDIT	TRIGGER
CR_INS_AS	TRIGGER
CR_INS_BR	TRIGGER
CR_INS_BS	TRIGGER
CR_RESTRICT_UPD_BR	TRIGGER
CUFM_INS_BR	TRIGGER
CUFM_RESTRICT_UPD_BR	TRIGGER
CUR_AUDIT	TRIGGER
CUR_CASCADE_DEL_AS	TRIGGER
CUR_CASCADE_DEL_BR	TRIGGER
CUR_CASCADE_DEL_BS	TRIGGER
CUR_RESTRICT_UPD_BR	TRIGGER
CU_BR	TRIGGER

OBJECT_NAME	OBJECT_TYPE
-----	-----
V_CAMS_MENUS_HIERARCHY	VIEW
V_CAMS_LOCK_CONSTANTS	VIEW
V_CAMS_USERS	VIEW
V_CAMS_ROLES_HIERARCHY	VIEW
V_CAMS_USER_LOCK	VIEW
V_CAMS_USER_FAV_MENUS	VIEW
V_CAMS_USER_ROLE_MENUS	VIEW
V_CAMS_LOCK	VIEW
V_CAMS_LOCK_HISTORY	VIEW
V_CAMS_MENUS_MODES	VIEW
V_CAMS_USER_ROLE_MENUS_MODES	VIEW
V_CAMS_ACCESS_STATISTICS	VIEW
V_CAMS_ACCESS_STATISTICS_ARC	VIEW
VIEW_NMDG100	VIEW
VIEW_NMDG101	VIEW
VIEW_NMDG102	VIEW

*Please review the log file created for any errors. If errors do occur and it is not clear how to resolve the errors, please follow the established Migration Rework procedures:

Diagram : COPY_OF_SMD - CAMS NAVIGATOR MENU TABLES
Created : 06 July 2000 16:09:56
Modified : 11 March 2003 19:23:39
Author : W. Liao / C. Fang / P. Nosko

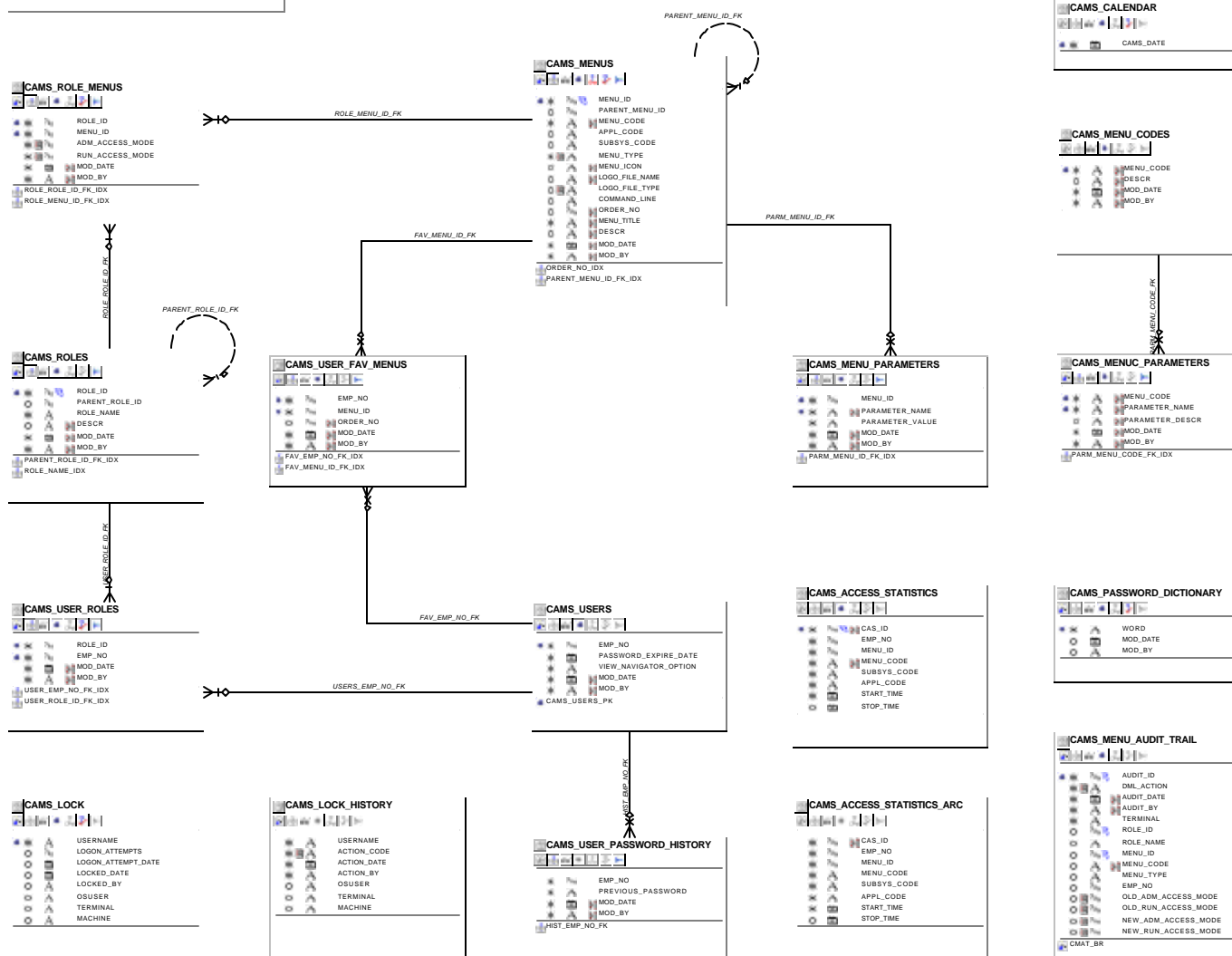


Figure 1: Navigator Database Schematic (Tables)

Diagram : SMD - CAMS NAVIGATOR MENU VIEWS
Created : 07 August 2002 12:13:27
Modified : 19 September 2002 19:28:20
Author : W. Liao / C. Fang / P. Nosko

V_CAMS_USER_ROLE_MENU	
EMP_NO	
MENU_ID	
PARENT_MENU_ID	
ADM_ACCESS_MODE	
RUN_ACCESS_MODE	

V_CAMS_USER_FAV_MENU	
EMP_NO	
MENU_ID	
ORDER_NO	
ADM_ACCESS_MODE	
RUN_ACCESS_MODE	

V_CAMS_MENU_HIERARCHY	
MENU_LEVEL	
MENU_ID	
PARENT_MENU_ID	
ROW_NO	
MENU_CODE	
MENU_TYPE	
MENU_ICON	
ORDER_NO	
MENU_TITLE	
MENU_LABEL	

VIEW_NMDG100	
START_DATE	
APPL_CODE	
ACCESSSES	
HOURS	

VIEW_NMDG101	
START_DATE	
APPL_CODE	
SUBSYS_CODE	
ACCESSSES	
HOURS	

V_CAMS_USERS	
EMP_NO	
DB_USER_NAME	
LAST_NAME	
FIRST_NAME	
MIDDLE_NAME	
ACTIVE_STATUS	

V_CAMS_ROLES_HIERARCHY	
ROLE_LEVEL	
ROLE_ID	
PARENT_ROLE_ID	
ROW_NO	
ROLE_NAME	
DESCR	
ROLE_LABEL	

VIEW_NMDG102	
START_DATE	
APPL_CODE	
SUBSYS_CODE	
MENU_CODE	
ACCESSSES	
HOURS	

V_CAMS_LOCK	
LAST_NAME	
FIRST_NAME	
MIDDLE_NAME	
USERNAME	
EMP_NO	
LOCKED_DATE	
LOCKED_BY	
OSUSER	
MACHINE	
TERMINAL	

V_CAMS_USER_LOCK	
USERNAME	
LOGON/ATTEMPTS	
LOGON/ATTEMPT_DATE	
LOCKED_DATE	
LOCKED_BY	
OSUSER	
TERMINAL	
MACHINE	

V_CAMS_MENU_MODES	
MENU_ID	
PARENT_MENU_ID	
MENU_CODE	
MENU_TYPE	
CLIENT_SERVER_MODE	
WEB_MODE	

V_CAMS_USER_ROLE_MENU_MODES	
EMP_NO	
MENU_ID	
PARENT_MENU_ID	
ADM_ACCESS_MODE	
RUN_ACCESS_MODE	
CLIENT_SERVER_MODE	
WEB_MODE	

V_CAMS_LOCK_CONSTANTS	
VALUE	

V_CAMS_LOCK_HISTORY	
LAST_NAME	
FIRST_NAME	
MIDDLE_NAME	
USERNAME	
EMP_NO	
ACTION_CODE	
ACTION_DATE	
ACTION_BY	
OSUSER	
MACHINE	
TERMINAL	

V_CAMS_ACCESS_STATISTICS	
CAS_ID	
EMP_NO	
DB_USER_NAME	
MENU_ID	
MENU_CODE	
SUBSYS_CODE	
APPL_CODE	
START_TIME	
STOP_TIME	

V_CAMS_ACCESS_STATISTICS_ARC	
CAS_ID	
EMP_NO	
DB_USER_NAME	
MENU_ID	
MENU_CODE	
SUBSYS_CODE	
APPL_CODE	
START_TIME	
STOP_TIME	

Figure 2: Navigator Database Schematic (Views)

3. Desktop Set-Up Instructions

3.1 Install Oracle Runtime

Oracle Developer 6i Runtime (with Patch 4) is provided on the first installation CD. The software on this CD should be installed on each desktop that will be running the Forms 6i version of CAMS (or installed centrally using CITRIX).

Note: The Navigator Menu uses the d2kwut60.dll and d2kwutil.pld library files. These files are required and have been delivered to the bureaus by the CSC.

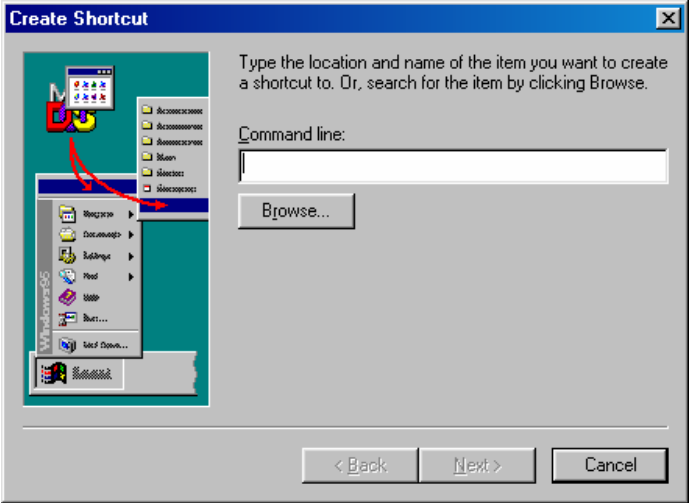
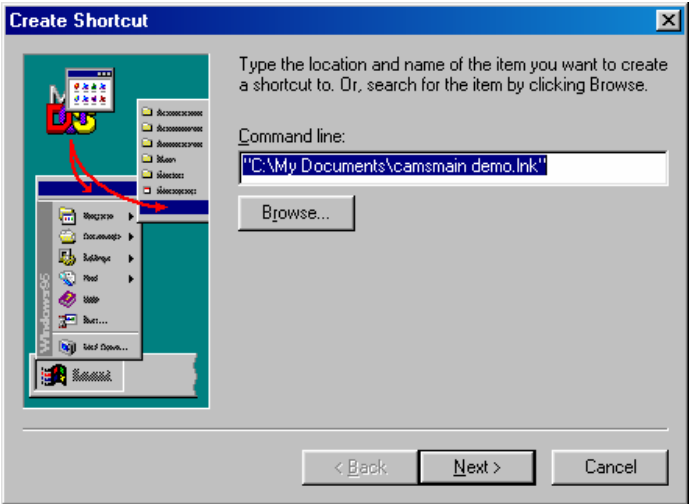
3.2 Set Windows Registry Parameters

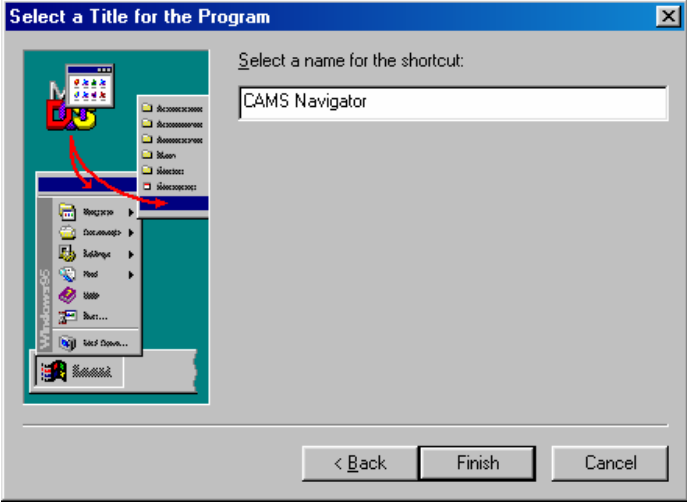

On each workstation, the Microsoft Windows registry parameters should be set as follows:

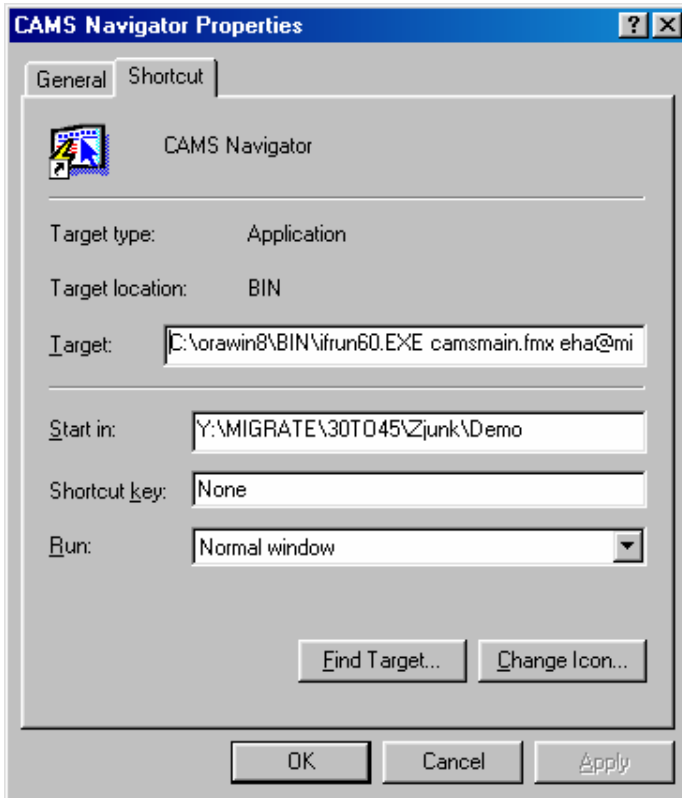
- Set the REPORTS60_TMP entry to the same directory that the REPORT25_TMP entry points (e.g., c:\temp). If this is not done, the message “FRM-41211: Integration error: SSL failure running another product.” may be encountered.
- If an SSL error is still encountered when attempting to run a report from the menu, wait a couple of seconds and try it again (to allow time for the report background engine button to appear or for task bar at the bottom of the screen).
- Ensure that the UI_ICON parameter points to the directory in which the icons are located.

3.3 Create Desktop Icon

Each user requiring access to the GUI version of CFS should have an icon on their desktop. The icon may be set up by following the steps below:

Action	Explanation/Result
Right click the mouse on the desktop and select the New Shortcut option from the resulting pull-down list.	<p>The "Create Shortcut" window will appear.</p> 
Enter the path name for the link in the command line (or use the Browse command button to search for it) and select the Next command button.	

Action	Explanation/Result
<p>Enter the name for the shortcut and select the Finish command button.</p>	
<p>The shortcut icon should appear on your desktop.</p>	

Action	Explanation/Result
To tailor the shortcut, right-click on the icon and select "Properties" from the pull-down menu list.	<p>The Properties window will appear.</p>  <p>The Target field should point to the directory in which the Oracle ifrun60.exe routine exists and call the camsmain.fmx routine. This may or may not be followed by the user's ID and database instance. For security reasons, you should NEVER include your password as part of the Target field.</p> <p>The Start In field should contain the name of the directory in which the GUI software resides (specifically the camsmain.fmx routine).</p> <p>These fields will vary from bureau to bureau. Check with your CAMS Systems Support staff for the conventions followed at your location.</p>

3.4 CFS Data Warehouse

CFS system and CFS Data Warehouse are two different Oracle instances on separate servers. Follow the same steps (described in previous section) and create separate icon to access the CFS Data Warehouse with different Target and Start in fields.

4. Conventions

Before getting started, it is important to understand the conventions used within most CAMS applications with regard to the window elements and layouts. This knowledge will help you move freely and smoothly throughout the system.

Note: This section applies to all CFS and CFS Data Warehouse applications.

The system is built on a Graphical User Interface (GUI) that provides full point-and-click capability increasing ease of use.

CAMS incorporates a number of pull-down menu bars to facilitate movement and the selection of documents.

NOTE: With the navigator menu, a menu listing with the look of Windows Explorer is displayed on the left hand side of the screen with the form displayed more to the right.

- Each window also has a menu bar located at the top. To display a pull-down menu, click on the desired selection on the menu bar.
- When a document window is accessed, a new window is displayed. The name of the window appears at the top.
- Each window has a toolbar located at the top. The toolbar is a horizontal strip of icons. Each icon has a graphic image and "hint" balloon (narrative description) identifying its functionality.

The following illustration depicts the standard CAMS application screen layout:

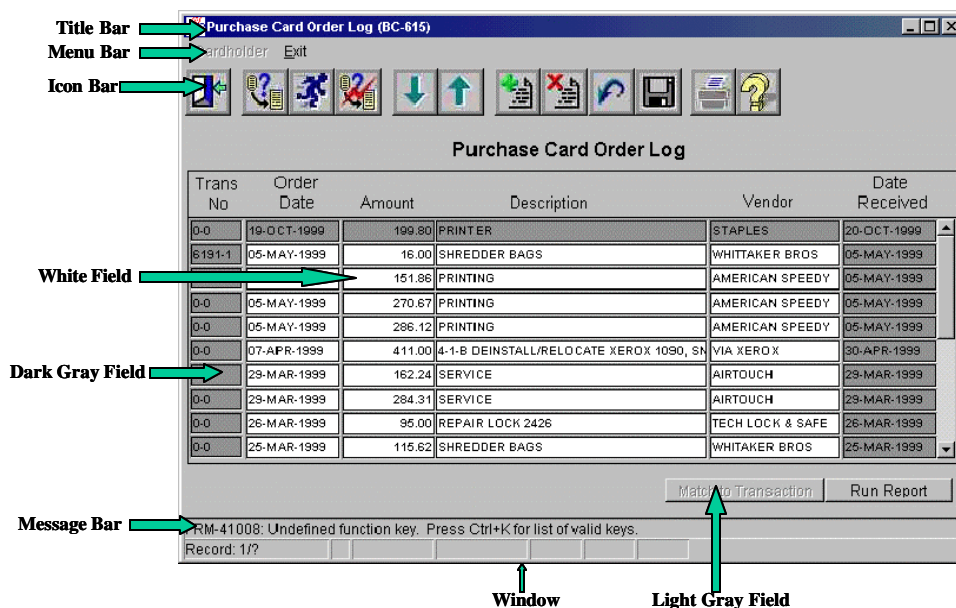


Figure 3: Standard CAMS Application Screen Layout

4.1 Common Window Elements

WINDOW – A “fill-in-the blanks” arrangement of data that facilitates insert, update, delete, and/or query of the database.

PAGE – The portion of a window that is seen on the monitor at any one time. A window can consist of one or more pages.

TITLE BAR – The bar along the immediate top of the window. Three buttons displayed in the top right hand corner, allow the user to maximize, minimize, or close the active window.

MENU BAR - The bar along the top of the window, above the icon bar. The menu bar provides various pull-down menus to use while moving throughout the program.

TOOLBAR – The bar under the menu bar that displays the icons currently available to the user.

CURSOR MOVEMENT – Cursor movement through a window is always left to right or top to bottom.

FIELD – A column in a database table. A field is displayed as a highlighted area on the window that can contain an existing value from the database and/or accept a new value. Below are the general descriptions of the varying fields.

- **White** fields indicate mandatory fields. A user will not be able to send, approve, or activate data unless these fields are filled.
- **Light Grey** (i.e., the same color as the window background) indicate fields that are not accessible by the user because these fields are system-generated.
- **Dark Grey** fields indicate optional fields. Data may be entered, but it is not required.

WINDOW NAME/OPTION CODE – The name of the window will appear with the option code as follows: Purchase Card Order Log (BC-615). The option code in the upper left hand corner of the window is alphanumeric.

CHECK BOX – A box that allows the user to select a specific option by “checking it”, or view that an option has been chosen. This is normally indicated by either an “**x**” or a “**✓**”.

COMMAND BUTTONS – The buttons available within a window, usually located at the bottom of the screen. In order to access a button, a user must click on it. If a button is shaded, it is not active for the current window. Some example buttons are OK or Cancel.

SYSTEM MESSAGE – System messages appear in the lower left hand corner of the window in the message bar. It will display what action the computer is taking, as well as what may be available in a certain window or field. Some messages include: “Working...” “Field is protected against updates”; “(A List is Available)”; and “Unable to perform query.” The system message will always include a count of how many records were received. In a query, this will be displayed directly below the current system message.

COUNT – Count always appears in the lower left hand corner of the window and indicates the number of complete records displayed on the window.

DATE FIELDS – All date fields use the default format of DD-MON-YYYY, (e.g., 12-JUN-2001).

SCROLL BAR - The scroll bar allows movement between records. Clicking on the down or up arrows allows the user to scroll through records.

POP-UPS – Pop-up windows are used to include additional information within a record. A pop-up window can be an entire window or a small window depending upon the information recorded/displayed.

LIST OF VALUES - A pop-up table that contains a List of Values for the selected field. It is often denoted as LOV. The List of Values for a field may be accessed by double-clicking on that field or clicking on the scroll down arrow.

PLUS SIGN – Located next to an icon on a menu, a plus sign indicates that there are items within the folder that may be viewed. Clicking on the plus sign will expand the folder to view the contents.

MINUS SIGN – Located next to an icon on a menu, a minus sign indicates that items within the folder are displayed below. Clicking on the minus sign will collapse the folder hiding the contents within it.










4.2 Operator Functions









Operator functions are the specific actions that can be performed within CAMS. The operator functions are available as icons located on a toolbar directly below the menu bar. The toolbar on the window document is a horizontal strip of icons located at the top of the window. Each icon is a small graphic image that represents an application (functionality), command, or tool. A “hint balloon” is associated with each icon. The hint balloon displays the name/functionality of the icon. The icon’s hint balloon is displayed by positioning the cursor on an icon and pausing.

The following is an example of the hint balloon for the Save icon:



The following table summarizes the various menu icons and their functions. Note that the icons for the forms have not changed.

Icon	Name	Description
	EXIT	This icon is available throughout CAMS and allows the user to leave the current window, document, and application. Use of the Exit icon in these situations may prompt the user to commit or save recently entered data.
	SAVE	The Save button can be used in many circumstances to save (commit) complete or partial records to the database.
	PRINT	The Print button is designed to print a report related to the data appearing on the current active window NOTE: In some instances, selecting the print icon does not automatically print the report.
	ENTER QUERY	This icon clears any existing records or data from the window and prompts the user for query information.
	EXECUTE QUERY	Once query information is entered, clicking this button executes the query. The system will return all records that match the query criteria. Use the Left and Right Arrows in the tool bar or the up and down arrows on the keyboard to scroll through the records returned by the query. If this button is entered without entering any query data, all records will be retrieved.
	CANCEL QUERY	This button cancels query mode and returns the system to edit mode.
	CREATE RECORD	This button allows the user to create a new record. Generally, clicking this button will create a blank record and place the cursor in the first enterable field.
	DELETE RECORD	In selected instances, this button can be used to delete a record or a line item.
	PREVIOUS SET	This button positions the user at the first record in the previous set (page) of records.

Icon	Name	Description
	NEXT RECORD	This button allows the user to scroll forward through a list of records. This button is disabled once the last record is reached.
	PREVIOUS RECORD	This button allows the user to scroll back through a list of records. This button will become disabled once the first record is reached.
	NEXT SET	This button positions the user at the last record in the current set (page) of records.
	CUT	Removes the highlighted text from the screen and places it in the Windows clipboard.
	COPY	Copies the highlighted text from the screen and places it in the Windows clipboard.
	PASTE	Inserts the text from the Windows clipboard into the field in which the cursor is placed.
	HELP	This button provides on-line documentation for each field. To access the information for a particular field, place the cursor in that field and click the Help button. The Help information is designed to facilitate accurate data entry in each field.
	MENU	Makes the CAMS Navigator menu the active window.

4.3 Navigation Capabilities

The GUI make-up of CAMS minimizes the number of keys and keystrokes that the user is required to execute. It allows for increased use of the mouse as well as the ability to use on-window buttons, icons, and menu options. The CAMS Navigator uses the following keys. Note, however, that individual modules/applications within CAMS may have different functionality assigned to these keys.

Function	Key
Accept	F10
Block Menu	F5
Cancel	Esc
Clear Block	Shift+F5
Clear Field/Item	Ctrl+u
Clear Form	Shift+F7
Clear Record	Shift+F4
Count Matching Records	Shift+F2
Debug Mode	Ctrl+?
Delete Backward	Del
Delete Backward	Backspace
Delete Record	Shift+F6
Display Error	Shift+F1
Down	Ctrl+I
Down	Down
Duplicate Field/Item	F3
Duplicate Record	F4
Edit	Ctrl+e
Enter Query	F7
Execute Query	F8

Function	Key
Help	F1
Left	Left
List of Values	F9
New Record	F6
Next Block	Ctrl + Page Down
Next Field/Item	Ctrl+Tab
Next Field/Item	Tab
Next Primary Key	Shift + F3
Next Record	Shift + Down
Next Set of Records	Ctrl+>
Previous Block	Ctrl + Page Up
Previous Field/Item	Shift + Tab
Previous Field/Item	Shift + Ctrl + Tab
Previous Menu	Ctrl + Enter
Previous Record	Shift + Up
Return	Enter
Right	Right
Scroll Down	Page Down
Scroll Up	Page Up
Show Keys	Ctrl+F1
Up	Up
Up	Ctrl + p

4.4 Mouse Functions


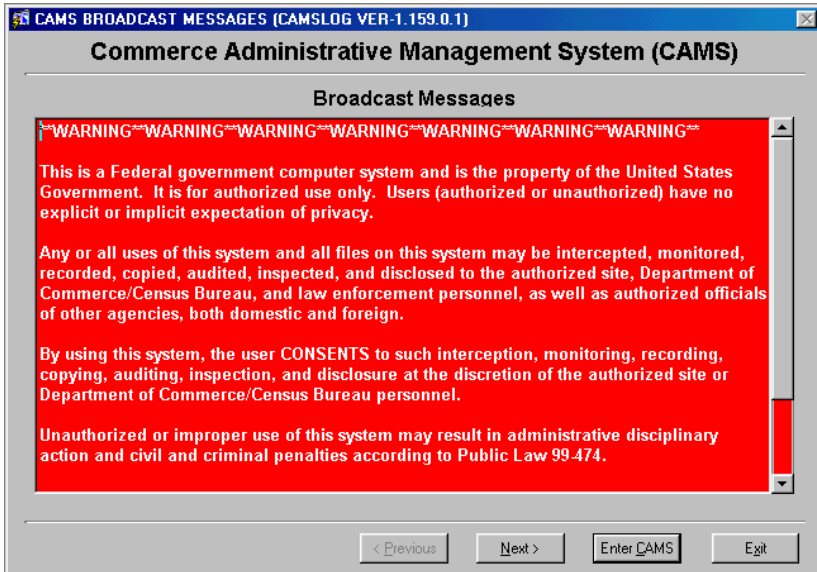
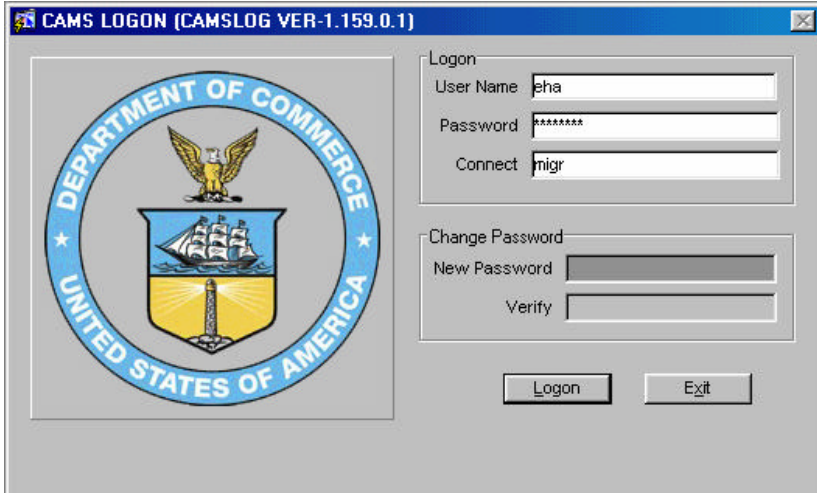
The mouse allows a user to highlight, select, scroll, and access lists and pop-up windows. It also allows movement around the menu bar, selecting different windows, options, and exit. CAMS users have the following mouse functions available:

- **Single-Click Left Mouse Button** – A single click of the left mouse button allows a user to select a menu option within the pull-down menu. A single click will also allow access to buttons in the window as well as accept system responses such as “OK” and “Cancel”.
- **Double-Click Left Mouse Button** – A double-click of the left mouse button allows a user to access a list in a field or launch a different window.
- **Single-Click Right Mouse Button** – In some applications, the right mouse button is programmed with options. In the CAMS Navigator menu, the right mouse button provides authorized users the ability to maintain menu options.

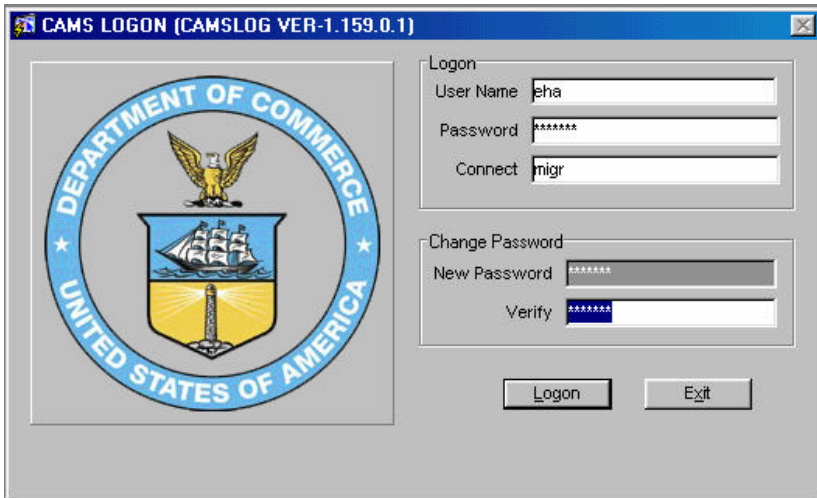
5. Navigator Menu User Features



5.1 Logging On

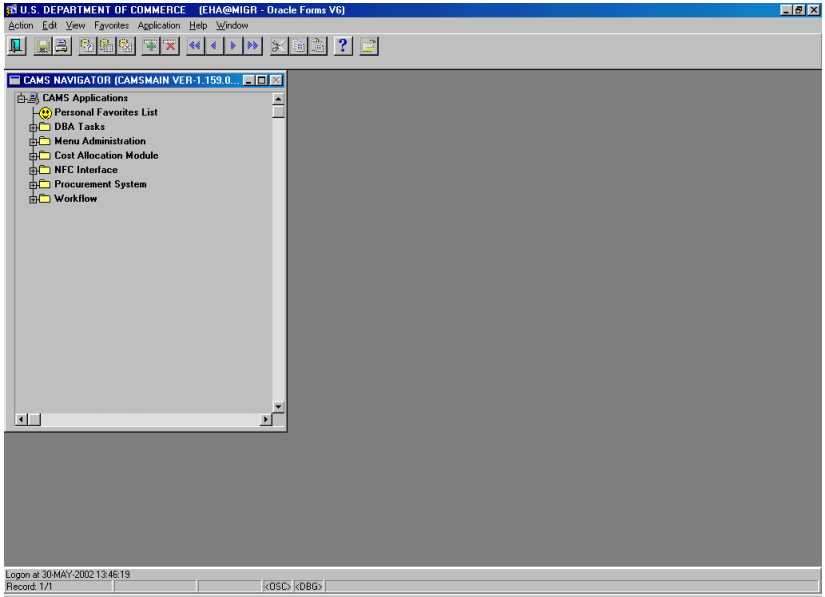
Before accessing the CAMS Navigator menu, the user must first log into the CAMS Oracle database through the CAMS Logon screen. This screen allows the user to not only specify their account information for logging into the system, but also provides the ability to change their password. The system will allow you a set number attempts to enter a valid User ID and Password. This amount is set by the menu administrator on the Menusec screen (see Section 6.2.1.4). Once the amount of attempts reaches the allowed amount of attempts, the user will be locked out of the system.

Action	Explanation/Result
<p>To log on to the system, you must first double-click on the CAMS Navigator icon on your desktop.</p> 	<p>Any broadcast messages that are selected will appear.</p> 
<p>Select the Enter CAMS command button.</p>	<p>The CAMS Logon screen will appear reflecting the user information (if any) from the icon properties.</p> 

Action	Explanation/Result
Enter your Oracle User Name and Password in the first two fields.	This information will allow you to log onto the CAMS database system.
In the third field, select the database instance name you wish to connect to by selecting it from the drop-down list in the Connect field.	This information will allow you to select the database instance you wish to connect to and the ability to log onto the CAMS database system.

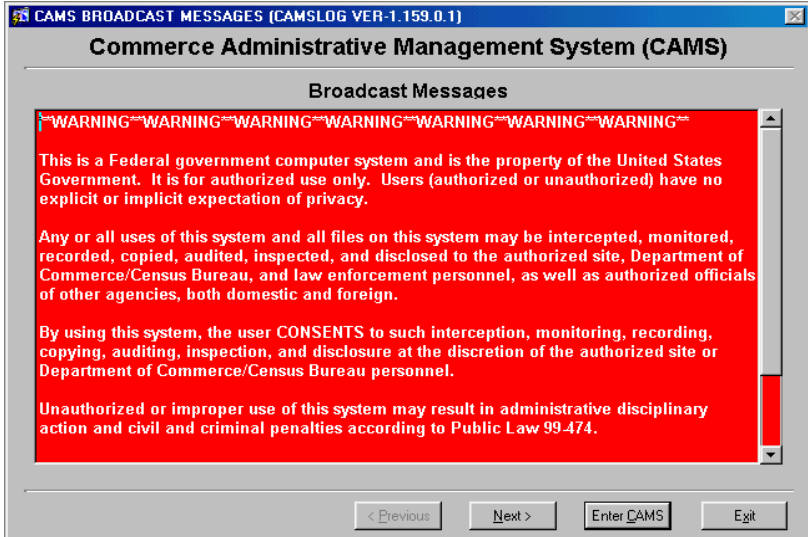
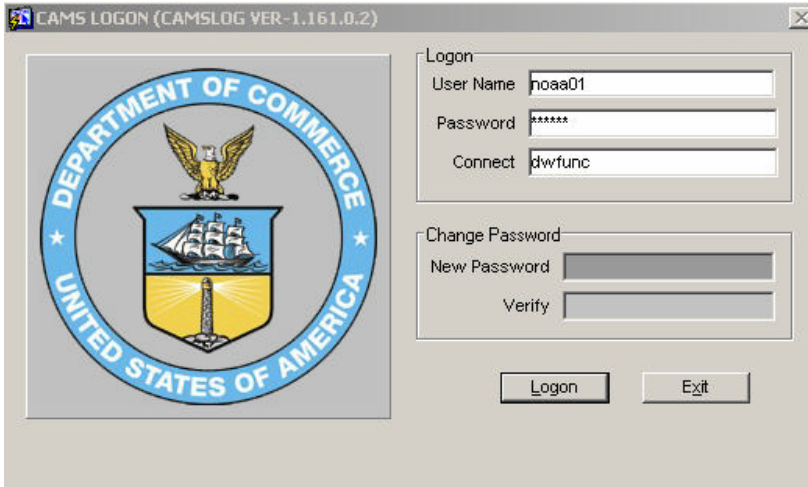
Action	Explanation/Result
<p>The CAMS Logon screen has a feature to allow you to change your password when logging in.</p> <p>Enter your new password in the New Password field followed once again by the new password in the Verify field.</p>	<p>Note that the Password, New Password, and Verify password are protected from view and will only display asterisks (*).</p>  <p>Note the following concerning passwords entered:</p> <ul style="list-style-type: none"> • Passwords expire based on security parameters maintained within the system. The system will prompt you to specify a new password after the number of days specified within the system (e.g., 30 days). • The password length must be from the minimum specified by each bureau (e.g., 8) to 30 characters long. • Passwords may contain only the letters A-Z, the numbers 0-9 and special characters #, \$ and _. • Passwords are not case sensitive. • A password must begin with an alphabetic character. The remainder of the password must be a mix of letters and numbers or allowed special characters. • Passwords must contain the minimum number of unique characters specified by each bureau (e.g., 6). • Passwords may not contain more than the maximum number of common character sequences specified by each bureau (e.g., 3). Common character sequences are defined as the following in forward or reverse order: <ol style="list-style-type: none"> 1. Letters, in alphabetic order (ABCD, JIHG). 2. Numbers, in numerical order (1234, 7654). 3. Odd and even numbers, in numerical order (2468, 7531). 4. The "QWERTY" characters, in keyboard order (QWER,

Action	Explanation/Result
	<p>FDSA).</p> <ul style="list-style-type: none"> The system maintains parameters stating how many days and number of consecutive times a password must be unique before being used again. Therefore, you cannot reuse the same password until after that period expires (e.g., 2 years) or the number of unique, consecutive passwords have been created (e.g., 8 times).
Select the “Logon” command button.	<p>The system will provide confirmation that your password has changed.</p>  <p>Note that if you choose not to change your password, this message will not be displayed and you will go directly to the next screen.</p>
Select the “OK” command button.	<p>If you have any messages, have documents awaiting your approval, or have documents awaiting assignment, the system will inform you of them.</p> 

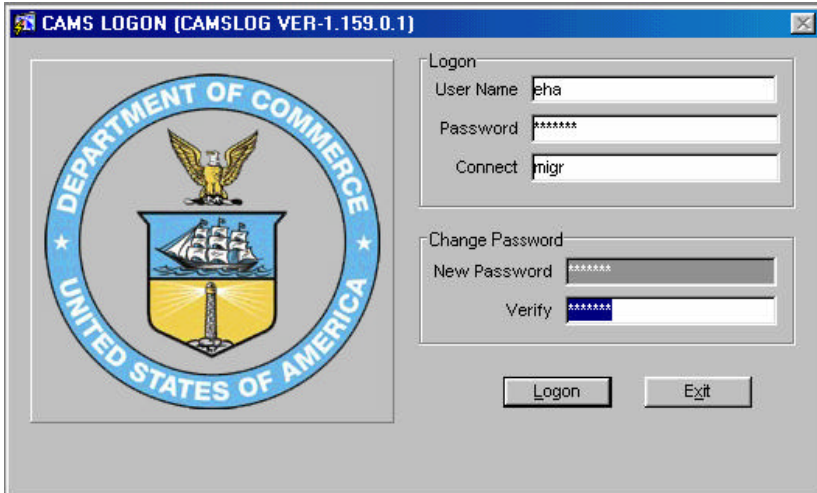
Action	Explanation/Result
Select the “OK” command button.	<p>You will be connected to the Navigator menu.</p> 

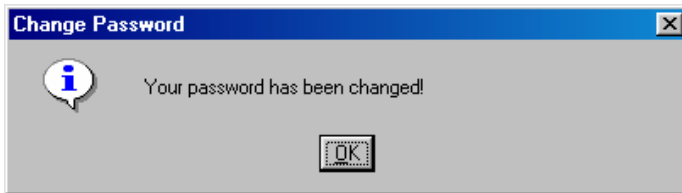
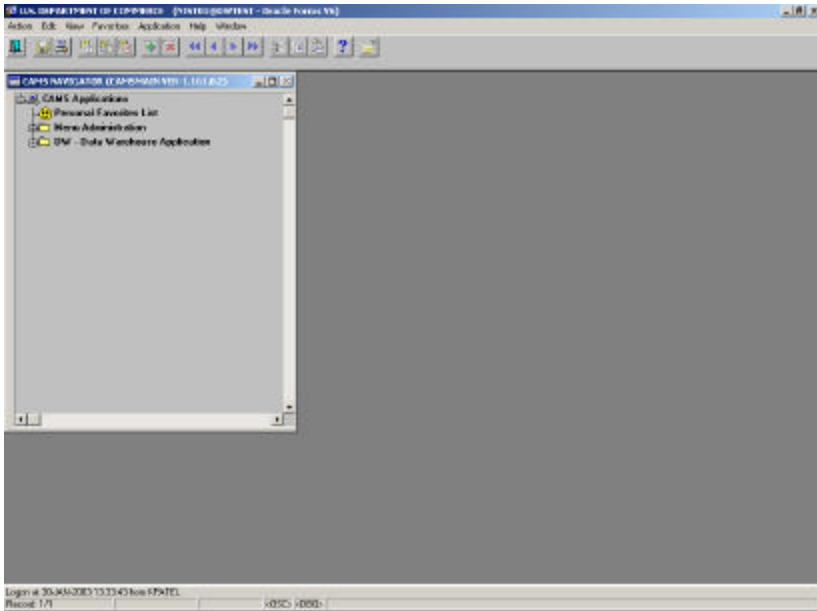
5.1.1 CFS Data Warehouse

The steps of logging on to the Data Warehouse are similar to CFS except the desktop icon and the main navigator menu will look differently, as shown in the following sample screens.

Action	Explanation/Result
To log on to the system, you must first double-click on the CAMS DW Navigator icon on your desktop. (CAMS DW icon)	Any broadcast messages that are selected will appear. 
Select the Enter CAMS command button.	The CAMS Logon screen will appear reflecting the user information (if any) from the icon properties. 
Enter your Oracle User Name and Password in the first two fields.	This information will allow you to log onto the CFS Data Warehouse database system.
In the third field, enter the database instance name you wish to	This information will allow you to enter the database instance you wish to connect to and the ability to log onto the CFS Data Warehouse database system.

Action	Explanation/Result
connect.	

Action	Explanation/Result
<p>The CAMS DW Logon screen has a feature to allow you to change your password when logging in.</p> <p>Enter your new password in the New Password field followed once again by the new password in the Verify field.</p>	<p>Note that the Password, New Password, and Verify password are protected from view and will only display asterisks (*).</p>  <p>Note the following concerning passwords entered:</p> <ul style="list-style-type: none"> • Passwords expire based on security parameters maintained within the system. The system will prompt you to specify a new password after the number of days specified within the system (e.g., 30 days). • The passwords length must be from the minimum specified by each bureau (e.g., 8) to 30 characters long. • Passwords may contain only the letters A-Z, the numbers 0-9 and special characters #, \$ and _. • Passwords are not case sensitive. • A password must begin with an alphabetic character. The remainder of the password must be a mix of letters and numbers or allowed special characters. • Passwords must contain the minimum number of unique characters specified by each bureau (e.g., 6). • Passwords may not contain more then the maximum number of common character sequences specified by each bureau (e.g., 3). Common character sequences are defined as the following in forward or reverse order: <ol style="list-style-type: none"> 5. Letters, in alphabetic order (ABCD, JIHG). 6. Numbers, in numerical order (1234, 7654). 7. Odd and even numbers, in numerical order (2468,

Action	Explanation/Result
	<p>7531).</p> <p>8. The “QWERTY” characters, in keyboard order (QWER, FDSA).</p> <ul style="list-style-type: none"> The system maintains parameters stating how many days and number of consecutive times a password must be unique before being used again. Therefore, you cannot reuse the same password until after that period expires (e.g., 2 years) or the number of unique, consecutive passwords have been created (e.g., 8 times).
Select the “Logon” command button.	<p>The system will provide confirmation that your password has changed.</p>  <p>Note that if you choose not to change your password, this message will not be displayed and you will go directly to the next screen.</p>
Select the “OK” command button.	<p>You will be connected to the DW Navigator menu.</p> 

5.2 General User Navigator Menu Functions

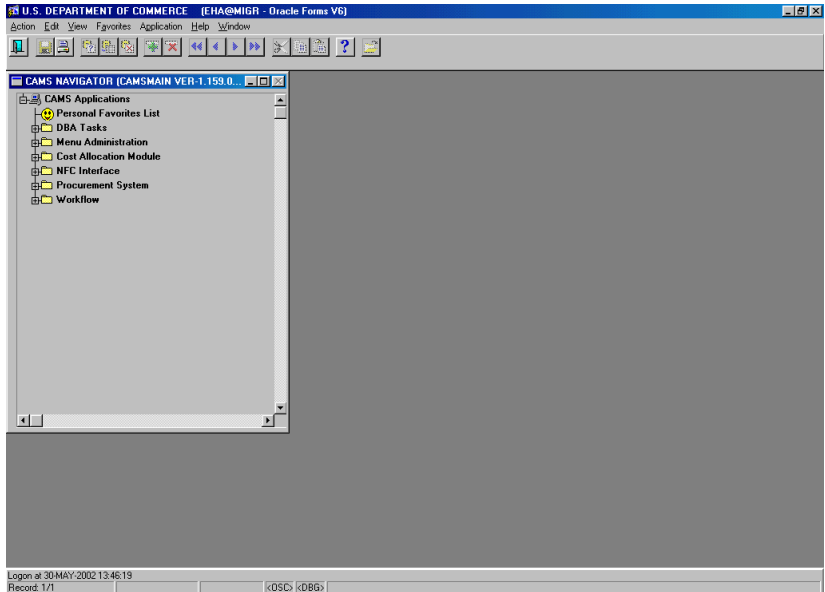
The CAMS Navigator menu is a dynamic menu that may be different for each user signing on to the system. Only the applications and functions within the application that a user is permitted to use are displayed for that user. A general CAMS user may perform the following functions within the Navigator menu:

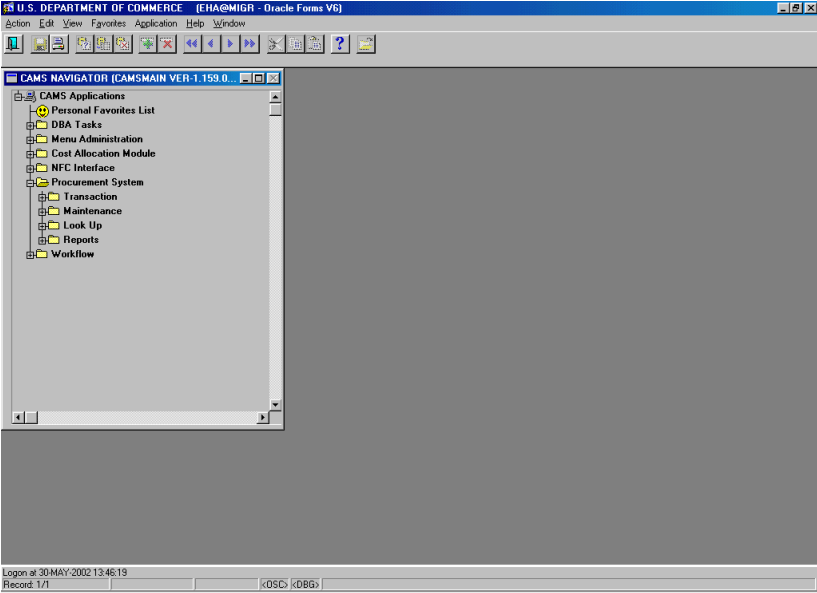
- Expand and Collapse Menu Items
- Add and Delete Items from the Personal Favorites List
- Sort Menu Items
- Execute Menu Items

The following subsections describe how each of these functions may be performed.

5.2.1 Expand and Collapse Menu Items

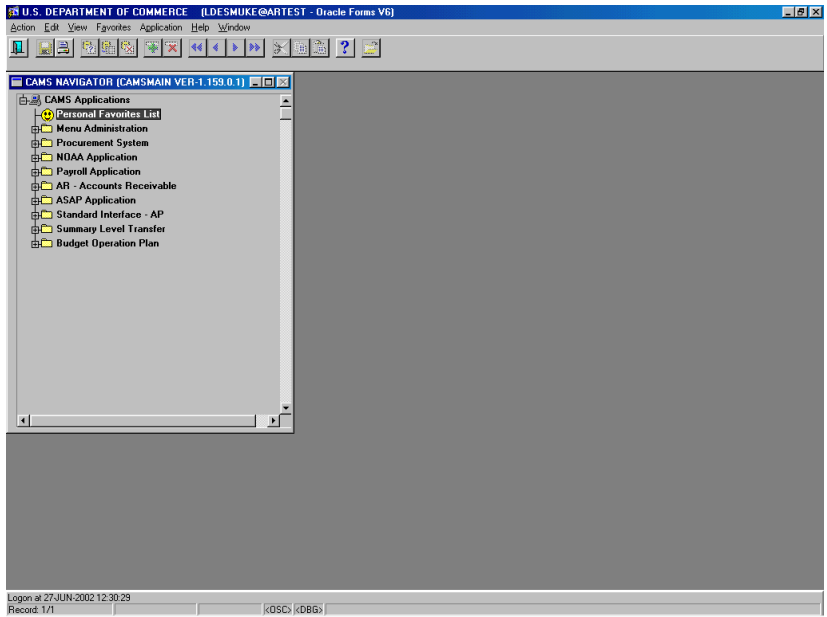
The Navigator menu is a hierarchical menu structure that allows menu items (folders) to be expanded to reveal additional items beneath it or collapsed to hide those items.

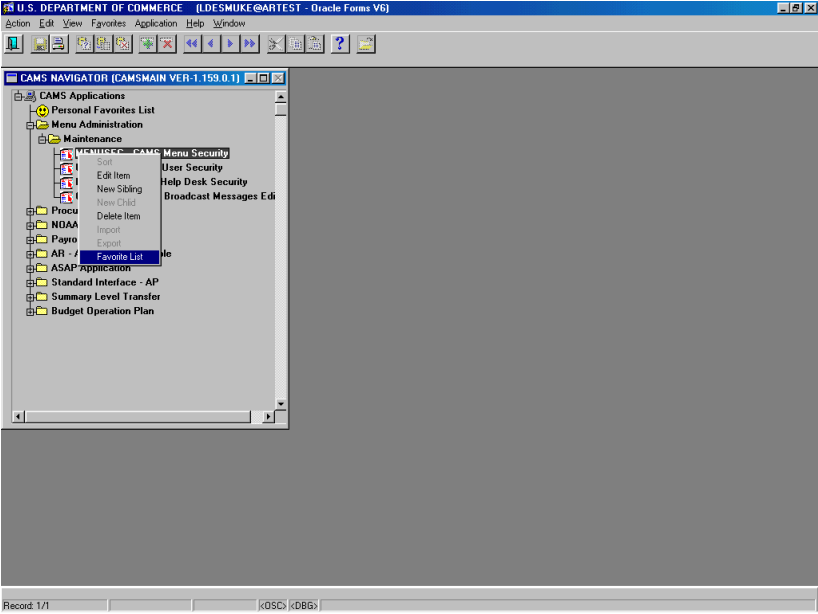
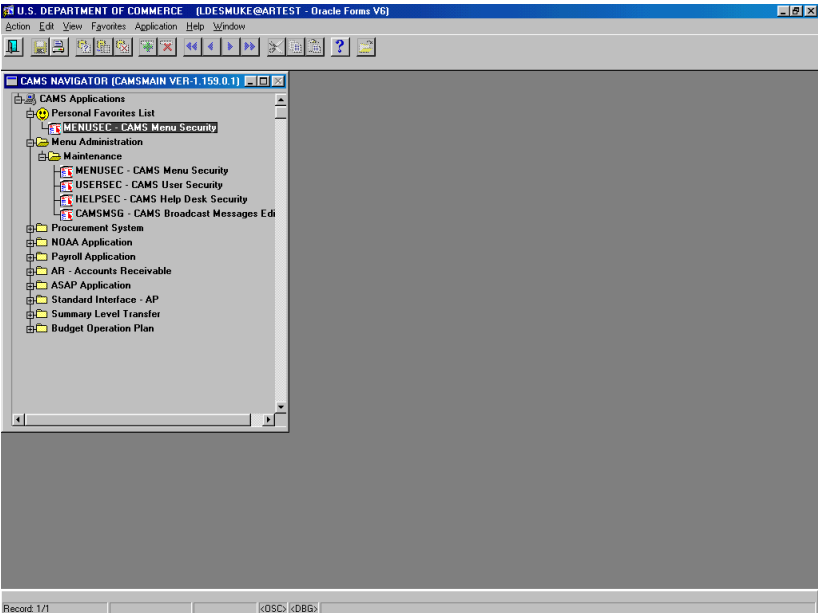
Action	Explanation/Result
	<p>When the CAMS Navigator menu is initially displayed, all folders are collapsed as shown below.</p>  <p>A plus sign (+) next to a menu option indicates that there are additional items beneath it. Note, however, that not all menu items will have a plus sign. If there is no plus or minus sign next to an item, that item is the lowest level item and may be executed by double-clicking the left mouse button.</p>

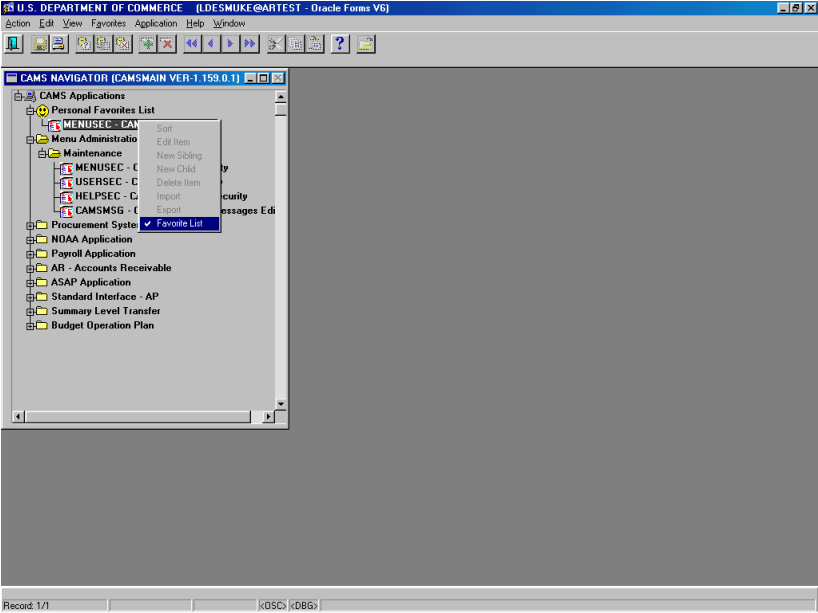
Action	Explanation/Result
Click on the plus sign (+) next to a menu option.	<p>The Navigator Menu will display the items beneath that menu item.</p>  <p>In this example, the Procurement System menu item was expanded. You can continue to click on the plus signs next to the folders beneath the Procurement System menu item to see more items.</p>
To collapse a menu item, select the minus sign (-) next to the menu item.	This will hide the items beneath the menu item again.

5.2.2 Add and Delete Items from the Personal Favorites List

Users are able to maintain a Personal Favorites List within their Navigator menu. The Personal Favorites List groups menu items most commonly used by the user under a separate heading for easier access. Users may select forms or reports to be added to their Personal Favorites List. Menu items (folders) cannot be selected for the Personal Favorites List.

Action	Explanation/Result
	<p>Each user will have a folder named “Personal Favorites List” within their menu structure. Initially this menu item will not have any items beneath it.</p>  <p>The screenshot shows the CAMS Navigator application window. The title bar reads 'U.S. DEPARTMENT OF COMMERCE (LDESIMUKE@BARTTEST - Oracle Forms V6)'. The menu bar includes 'Action', 'Edit', 'View', 'Favorites', 'Application', 'Help', and 'Window'. The toolbar contains various icons for navigation and application functions. The main window displays a tree view of the CAMS Applications menu structure. The 'Personal Favorites List' folder is highlighted, showing it is currently empty. Other visible menu items include 'Menu Administration', 'Procurement System', 'NOAA Application', 'Payroll Application', 'AR - Accounts Receivable', 'ASAP Application', 'Standard Interface - AP', 'Summary Level Transfer', and 'Budget Operation Plan'. The status bar at the bottom indicates 'Login at 27-JUN-2002 12:30:29' and 'Record: 1/1'.</p>

Action	Explanation/Result
<p>To add an item under the Personal Favorites List:</p> <p>Expand the menu item(s) until you reach a form or report to be placed in the favorites list.</p> <p>Left click on the item to select it.</p> <p>Right click on the item to activate the pull-down menu.</p>	<p>The Navigator Menu will display the items beneath that menu item.</p>  <p>A pull-down list will appear showing the options available to you.</p>
<p>Select the Favorite List option from the pull-down menu.</p>	<p>This will add the item to your Personal Favorites List.</p>  <p>This item now appears in two places on your menu. You may execute it from either menu item.</p>

Action	Explanation/Result
<p>To remove an item from your Personal Favorites List,</p> <p>Expand the Personal Favorites List menu item to display the items beneath.</p> <p>Left click on the item to be removed to select it.</p> <p>Right click on the item to be removed to activate the pull-down menu.</p> <p>Select the Favorite List option from the pull-down menu (note that it will be checked).</p>	 <p>The screenshot shows the CAMS NAVIGATOR application window. The title bar reads 'U.S. DEPARTMENT OF COMMERCE (LDESIMUKE@BARTST - Oracle Forms V6)'. The menu bar includes 'Action', 'Edit', 'View', 'Favorites', 'Application', 'Help', and 'Window'. The main window displays a tree view of 'CAMS Applications'. Under 'Personal Favorites List', a right-click context menu is open, listing options: 'Sort', 'Edit Item', 'New Sibling', 'New Child', 'Delete Item', 'Import', 'Export', 'Security', 'Messages', and 'Favorite List'. The 'Favorite List' option is highlighted with a blue selection bar.</p> <p>The item will be removed from the Personal Favorites List.</p> <p>Note, however, that it will still appear under the menu item from which it was originally selected. Only the menu administrator may add or remove items from folders other than the Personal Favorites List from the Navigator menu.</p>

5.2.3 Sort Menu Items

Users with menu administration privileges may sort menu items all folders. In addition, all users may sort their personal favorites list. Sorting allows multiple items in a folder to be arranged in any order. Sorting applies only to a single level of items within a folder. Items in any sub-folder must be sorted separately. A menu administrator may sort menu items individually, or sort the entire list alphabetically.

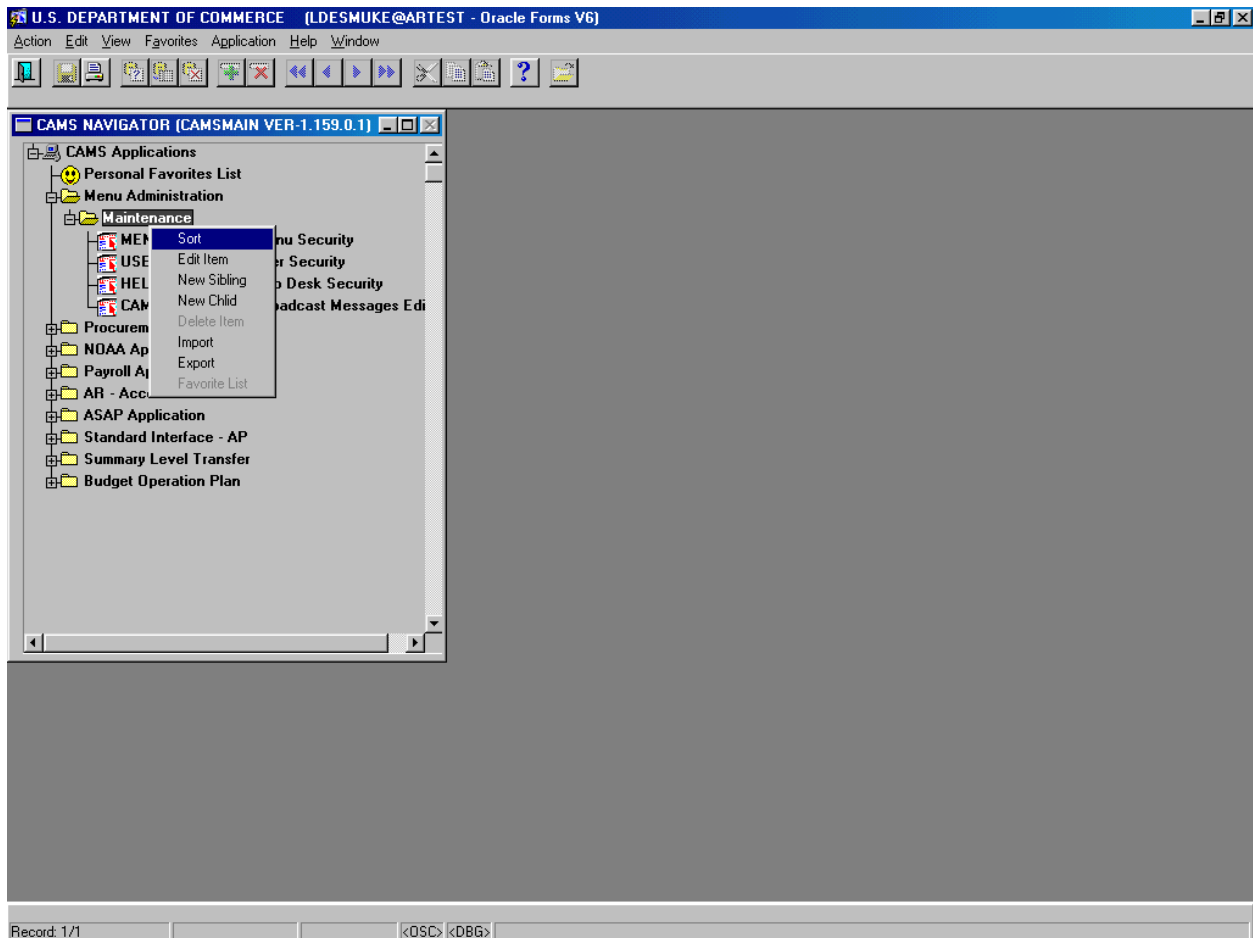
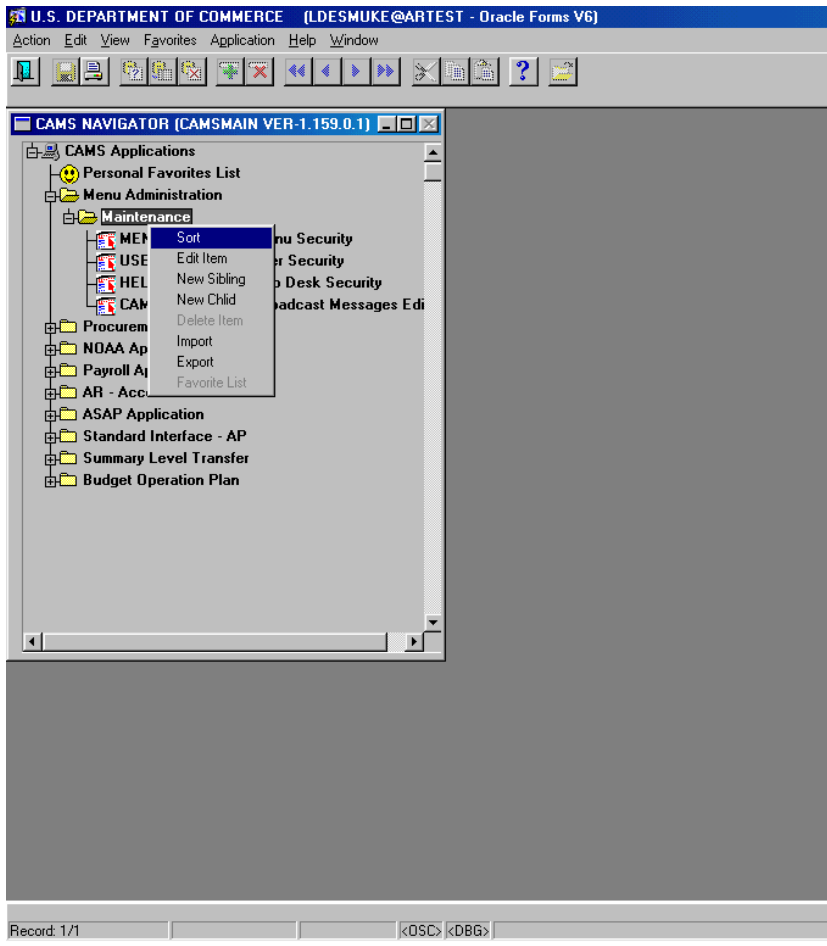
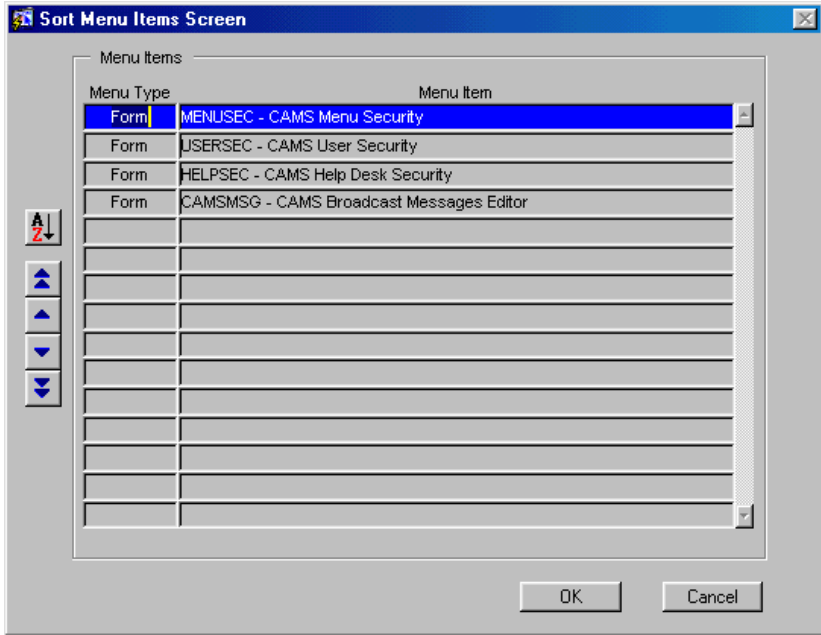







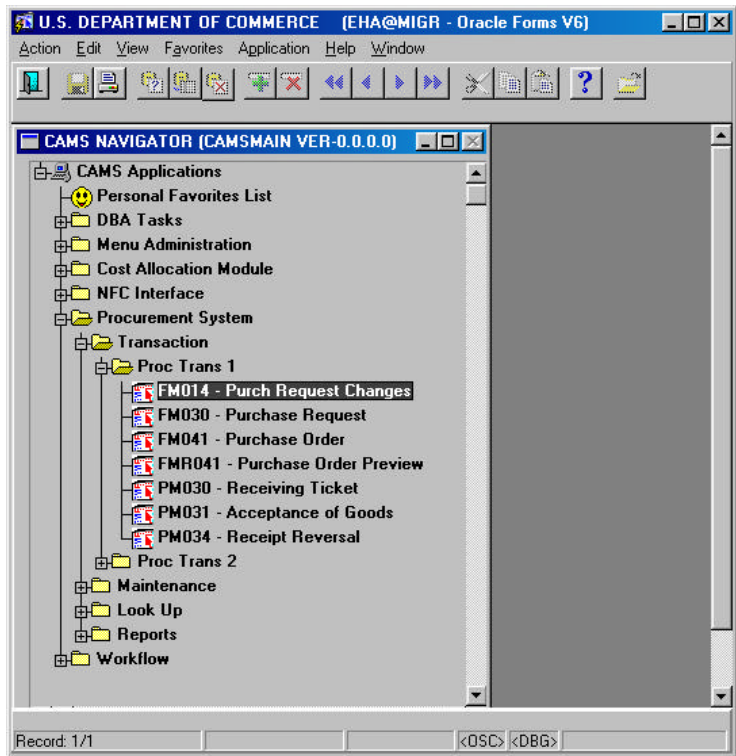
Figure 4: Expanded Menu Option

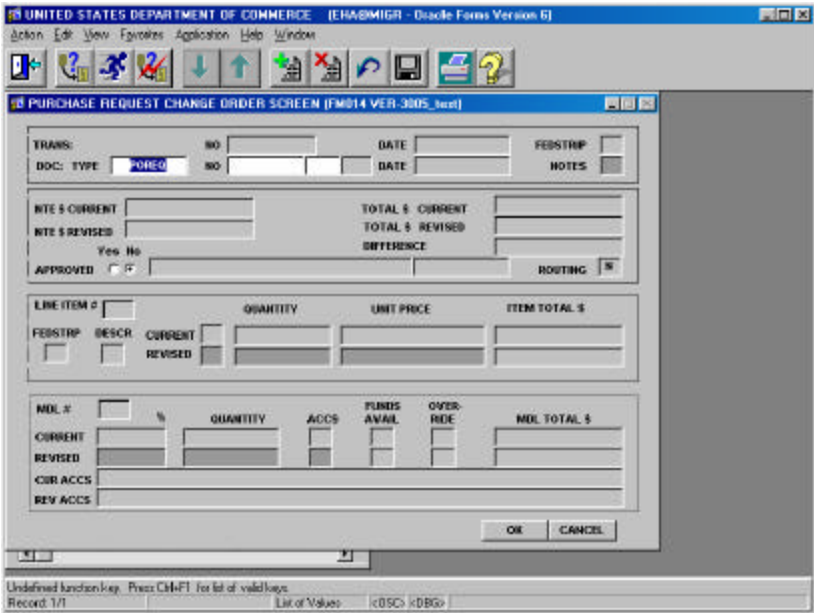
Action	Explanation/Result
<p>To sort items beneath a menu item:</p> <p>Left click on the menu item to be sorted to select it.</p> <p>Right click on the menu item to activate the pull-down menu.</p> <p>Select the Sort option from the pull-down list.</p>	 <p>The screenshot shows the 'U.S. DEPARTMENT OF COMMERCE (LDESMUKE@ARTEST - Oracle Forms V6)' application window. The 'CAMS NAVIGATOR (CAMSMAN VER-1.159.0.1)' window is open, displaying a tree view of applications. Under 'Menu Administration', the 'MEN' item is selected, and a context menu is open with the 'Sort' option highlighted. Other options in the menu include 'Edit Item', 'New Sibling', 'New Child', 'Delete Item', 'Import', 'Export', and 'Favorite List'. The tree view also shows other categories like 'Personal Favorites List', 'Maintenance', 'Procurement', 'NOAA Ap', 'Payroll Ap', 'AR - Acc', 'ASAP Application', 'Standard Interface - AP', 'Summary Level Transfer', and 'Budget Operation Plan'.</p>

Action	Explanation/Result
	<p>The Sort Menu Items Screen will appear showing the menu items as they are currently listed.</p>  <p>This screen provides five sorting options:</p> <ul style="list-style-type: none">  Sorts all items in ascending alphabetic order on the Menu Title.  Moves the selected item to the top of the list.  Moves the selected item up one level in the sort order.  Moves the selected item down one level in the sort order.  Moves the selected item to the end of the list.
<p>Select one or more of the sort options until the desired sequence is achieved.</p> <p>Select the OK command button.</p>	<p>The menu items will be sorted in the sequence specified.</p> <p>The Navigator window will be collapsed to show only the top level of menu items.</p> <p>Expand the menu items to view the newly sorted list.</p>

5.2.4 Execute Menu Items

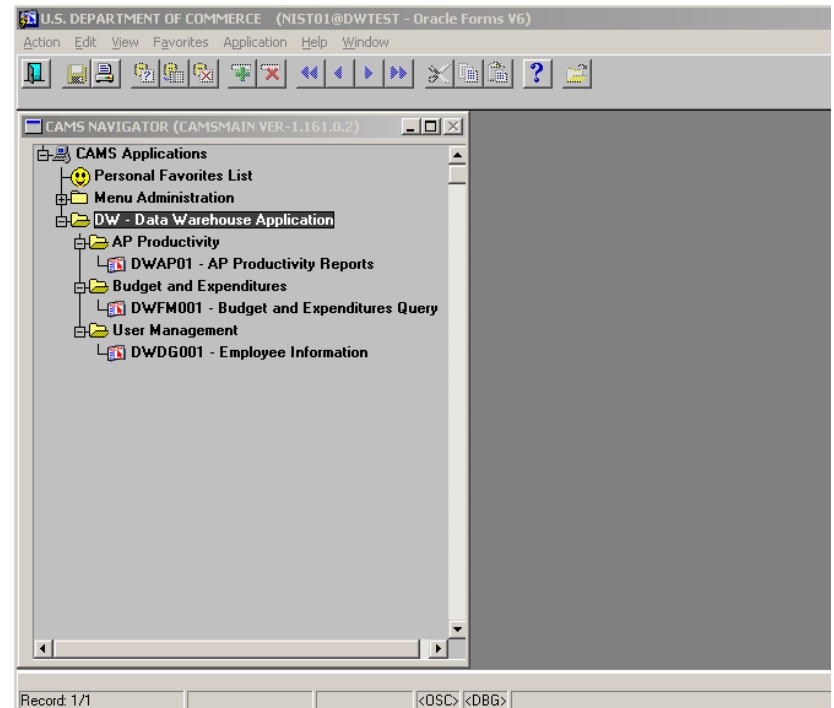
The main purpose of the Navigator Menu is to provide the user the ability to easily access and execute those CAMS functions that are applicable to their job function. The following table describes the actions to execute a function off the Navigator menu.

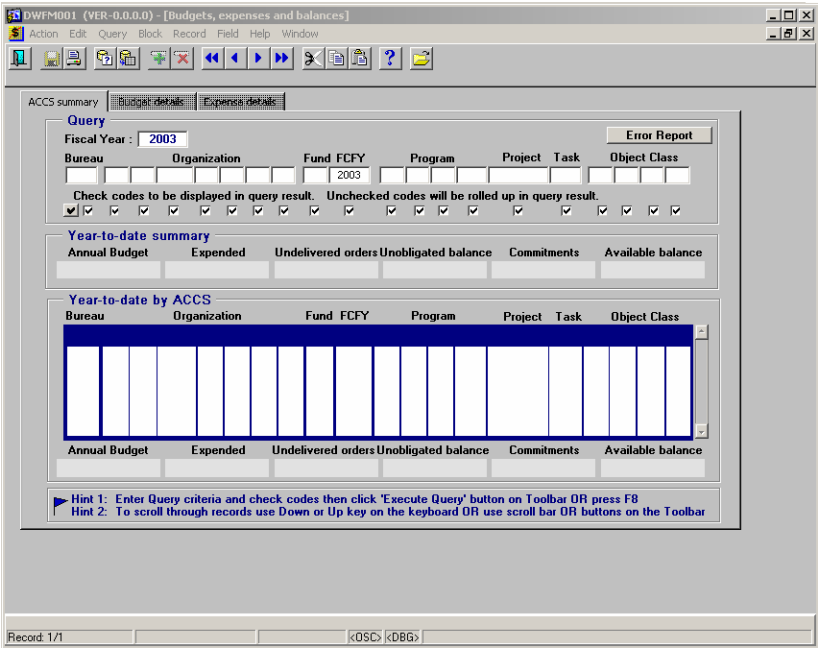
Action	Explanation/Result
To execute an item from the Navigator menu: Expand the menu item until you reach the form or report to be executed.	 <p>The screenshot shows the CAMS NAVIGATOR application window. The title bar reads "U.S. DEPARTMENT OF COMMERCE (EHA@MIGR - Oracle Forms V6)". The menu bar includes "Action", "Edit", "View", "Favorites", "Application", "Help", and "Window". The toolbar contains various icons for navigation and execution. The main area displays a tree structure under "CAMS Applications". The tree includes "Personal Favorites List", "DBA Tasks", "Menu Administration", "Cost Allocation Module", "NFC Interface", "Procurement System", "Transaction", "Proc Trans 1", "FM014 - Purch Request Changes", "FM030 - Purchase Request", "FM041 - Purchase Order", "FMR041 - Purchase Order Preview", "PM030 - Receiving Ticket", "PM031 - Acceptance of Goods", "PM034 - Receipt Reversal", "Proc Trans 2", "Maintenance", "Look Up", "Reports", and "Workflow". The status bar at the bottom shows "Record: 1/1" and navigation buttons "<OSC>" and "<DBG>".</p>

Action	Explanation/Result
Double-click the left mouse button on the item.	<p>The selected form or report will be executed.</p>  <p>Note some of the following features:</p> <ul style="list-style-type: none"> • The screen launched will generally be maximized within the window hiding the Navigator menu. • You may move the window by clicking and holding the blue title bar at the top and dragging it to the desired location. • You may execute more than one option from the menu at a time, provided the option to run multiple forms concurrently is enabled. See Section Error! Reference source not found. • The icon bar at the top of the screen will reflect the icons programmed for the screen being executed and may change from screen to screen based on the current, active window.

5.2.5 CFS Data Warehouse

The CFS Data Warehouse Navigator Menu provides the user the ability to easily access and execute those functions that are applicable to their job function. The following table describes the actions to execute a function off the CFS Data Warehouse Navigator menu.

Action	Explanation/Result
To execute an item from the CFS Data Warehouse Navigator menu: Expand the menu item until you reach the form or report to be executed.	 <p>The screenshot shows the CAMS NAVIGATOR application window. The title bar reads "U.S. DEPARTMENT OF COMMERCE (NIST01@DWTEST - Oracle Forms V6)". The menu bar includes "Action", "Edit", "View", "Favorites", "Application", "Help", and "Window". Below the menu bar is a toolbar with various icons. The main window displays a tree view of "CAMS Applications". The tree structure is as follows:</p> <ul style="list-style-type: none">CAMS Applications<ul style="list-style-type: none">Personal Favorites ListMenu AdministrationDW - Data Warehouse Application<ul style="list-style-type: none">AP Productivity<ul style="list-style-type: none">DWAP01 - AP Productivity ReportsBudget and Expenditures<ul style="list-style-type: none">DWFM001 - Budget and Expenditures QueryUser Management<ul style="list-style-type: none">DWDG001 - Employee Information <p>The status bar at the bottom shows "Record: 1/1" and navigation controls including "<OSC>" and "<DBG>".</p>

Action	Explanation/Result
Double-click the left mouse button on the item.	<p>The selected form or report will be executed.</p>  <p>Note some of the following features:</p> <ul style="list-style-type: none"> • The screen launched will generally be maximized within the window hiding the CFS Data Warehouse Navigator menu. • You may move the window by clicking and holding the blue title bar at the top and dragging it to the desired location. • The icon bar at the top of the screen will reflect the icons programmed for the screen being executed and may change from screen to screen based on the current, active window.

6. Menu Maintenance Instructions

The CAMS Navigator supports a number of functions performed by system/database administrators, managers/supervisors, and help desk staff. These functions are divided among three separate menu options to allow segregation of duties:

- MENUSEC – CAMS Menu Security
- USERSEC – CAMS User Security
- HELPSEC – CAMS Help Desk Security

Each CAMS installation should assign one or more users the role of performing these functions. This person will be granted the authorization for the following functions:

- Maintaining Menu Options (Create, Edit, Delete, Import, Export)
- Creating Menu Roles
- Assigning Roles to Users
- Assigning Roles to Menu Items
- Locking and Unlock Users from the Navigator
- Implementing Security Policy

The authorized user will also have the ability to perform the functions described in Section 5.2, General User Navigator Menu Functions. The following subsections describe how each of the menu maintenance functions may be performed.

6.1 Maintaining Menu Options (Create, Edit, Delete, Export, Import)

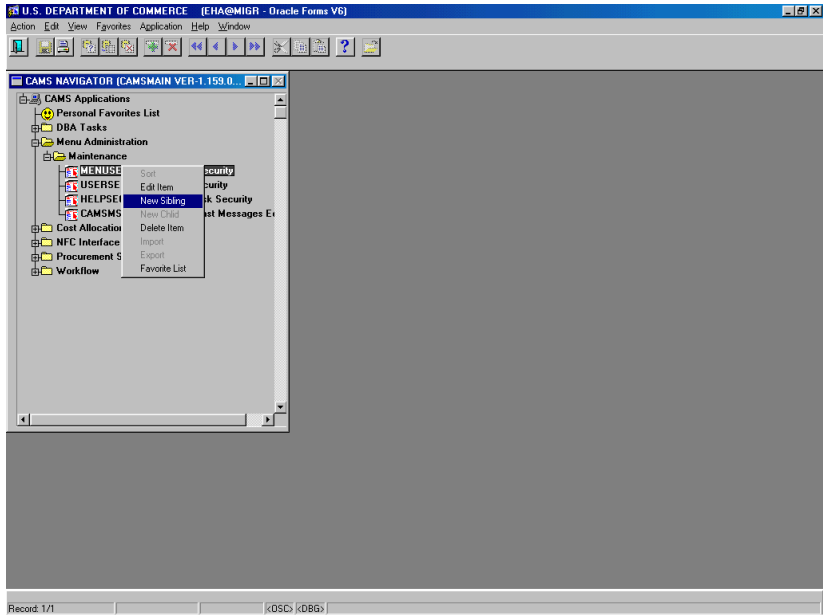
The Navigator menu allows the authorized user the ability to define and maintain four types of items: menus, forms, reports, and windows applications. Menu items may be layered to have sub-menus within a menu. In the Navigator tree structure, there is no limit to the number of sub-menus that may be defined¹. The lowest-level items that can be defined are Oracle forms, reports, or windows applications.

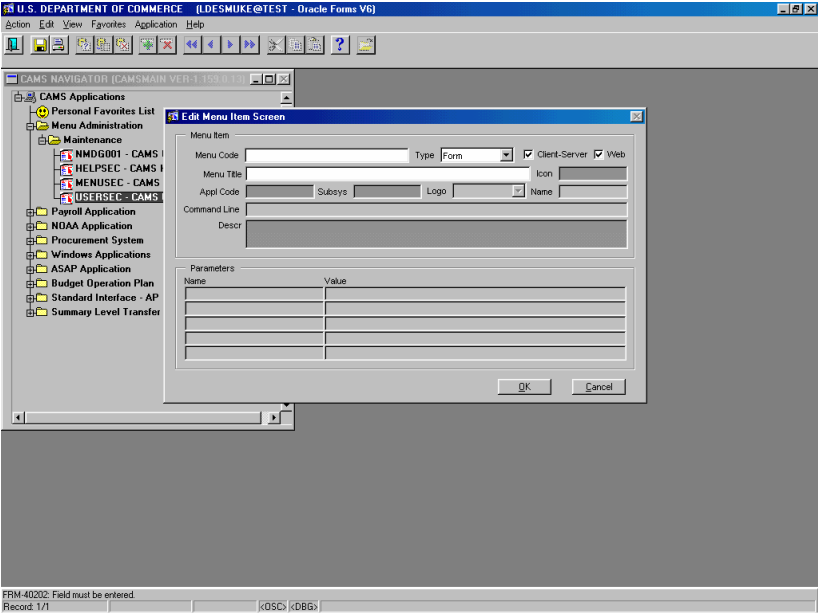
¹ Refer to Section 7, Dual Menu Capability, for limitations on the number of levels supported by Oracle through the window menu bar.

The following subsections describe how to create, edit, delete, export, and import navigator menu options.

6.1.1 New Child/New Sibling

The Navigator menu allows the menu administrator to create new items either as a sibling of the selected item (the new item will be at the same level as the selected item) or as a child of the selected item (the new item will be at the level directly beneath the selected item). New items are always added to the end of the list of items at the same level.

Action	Explanation/Result
<p>To create a new item on the Navigator menu:</p> <p>Select the level at which (sibling) or beneath (child) you wish to create the item.</p> <p>Left click on the item to select it.</p> <p>Right click on the item to activate the pull-down menu.</p> <p>Select the New Sibling or New Child option from the pull-down list as appropriate.</p>	 <p>The screenshot shows the CAMS NAVIGATOR application window. The title bar reads 'U.S. DEPARTMENT OF COMMERCE (EHA@MIDR - Oracle Forms V6)'. The menu bar includes 'Action', 'Edit', 'View', 'Favorites', 'Application', 'Help', and 'Window'. The main window displays a tree view of menu items. The 'Maintenance' folder is selected, and a right-click context menu is open, displaying options: 'Sort', 'Edit Item', 'New Sibling', 'New Child', 'Delete Item', 'Import', 'Export', and 'Favorite List'. The 'New Sibling' option is highlighted. The status bar at the bottom shows 'Record: 1/1' and 'K0SD K0BG'.</p>

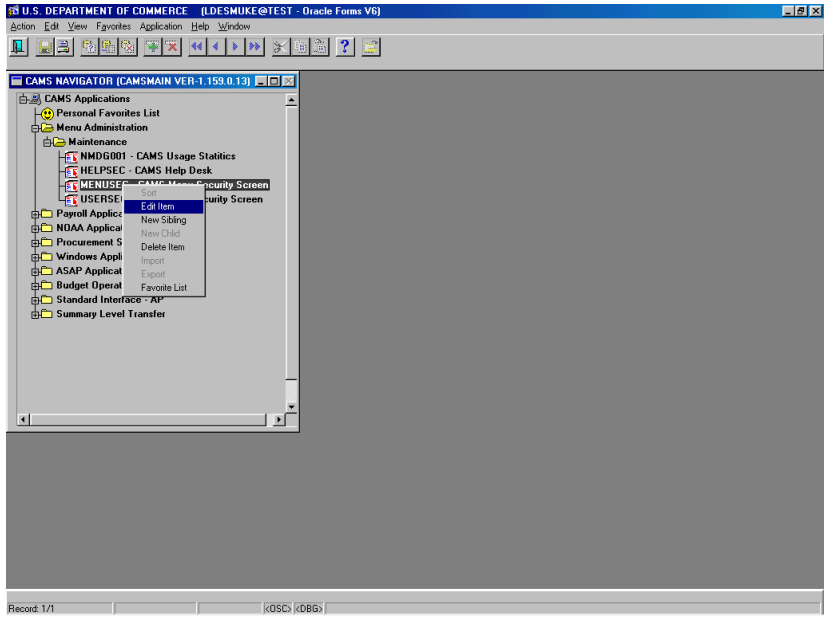
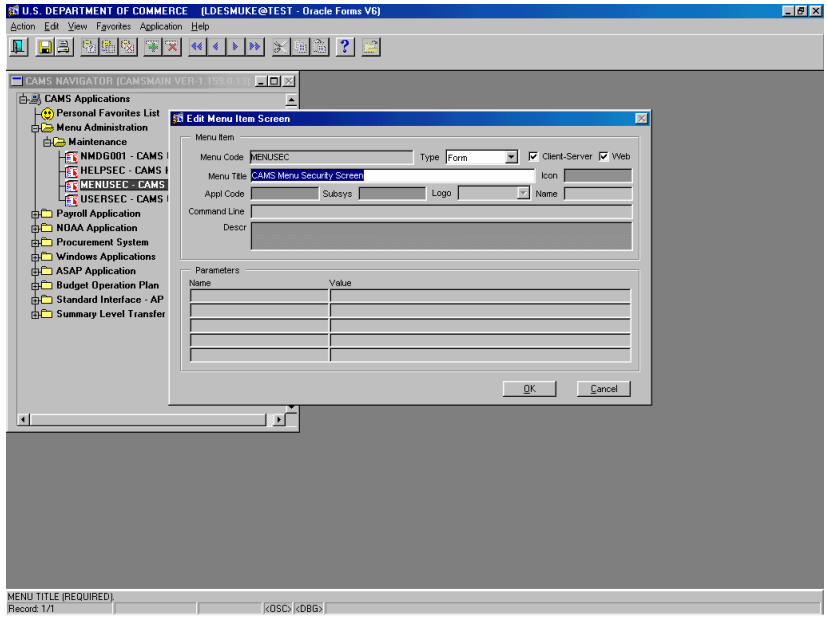
Action	Explanation/Result
<p>The Edit Menu Item Screen will be displayed.</p> <p>Enter fields as appropriate.</p>	 <p>FRM-40262: Field must be entered. Record: 1/1</p>
	<p>The data fields should be populated as follows:</p> <ul style="list-style-type: none"> Menu Code (Mandatory) – <p>For items with a Type of menu, this must be a unique identifier for the menu item. It will not be displayed on the Navigator menu itself. However, it is displayed as part of the menu option descriptions on the menu bar.</p> <p>For items with a Type of Form or Report, the menu code must be the program name of the form or report. The form (with an .fmx extension) or report (with an .rep extension) must exist within the same directory as the camsmain.fmx routine in order to be executed by the user. The value entered will be displayed as the first portion of the menu description on the Navigator screen and menu bar.</p> Type (Mandatory) – May select from a pull-down list of valid options. Valid options are Menu, Form, Report, or Windows App. The system will default this value to the value of the menu item selected at which or under which the item is being added. Icon (Optional) – The icon to be displayed for the menu item will default based on the Type specified. Menu options will default to a folder icon, forms to a forms icon, reports to a printer icon. A different icon may be specified and must exist within the same directory as the one in which the Navigator software exists. If the icon cannot be found within this directory,

Action	Explanation/Result
	<p>no icon will be displayed with the menu item. The icon name may not contain a file path or an extension.</p> <ul style="list-style-type: none"> • Command Line (Mandatory for Windows Applications) – This field specifies the command line of a windows application. The command line field is required for the “Windows App” menu type and not allowed for other types. Any Windows command line may be entered. The full path to the command (program) must be specified unless the path of the application is defined in the users path. Parameters may be specified on a command line. • Logo (Optional) – This field is used to specify the graphic file type of a logo. A logo will open whenever a user expands a folder that has a logo defined. When the folder is collapsed, the logo will close. Logos can be specified for “Menu” type menu items (folders) only. The selected type will be used as the file extension for the logo file name if none is provided. Valid logo file types are listed in this list box. For performance reasons, it is recommended that file types of .gif and .jpg be used. • Name (Optional) – This field is used to specify the file name of a desired logo. All logos must reside in the same directory as the navigator menu binaries. A file extension may be specified, and if so, the navigator menu will use this extension for the logo file name. If no extension is entered, the logo type will be used as the extension. This field may not contain a file path. The optimum size of a logo is 400 by 400 pixels. • Menu Title (Mandatory) – The title to be displayed for the menu item. This will appear after the Menu Code for forms and reports and in the title bar of the logo window. • Descr (Optional) – A longer description of the menu item. • Parameter Name (Optional) – Forms and reports may be coded to accept one or more predefined parameters. Parameters are predefined (when applicable) via entries in the CAMS_MENU_CODE and CAMS_MENUC_PARAMETERS Navigator Menu tables via database patches. When a new menu item is created, the list of predefined parameters will be displayed in the Name field of the Parameters block once the menu item is saved using the toolbar Save button. The list of parameter names are display-only

Action	Explanation/Result
	<p>and cannot be modified. The menu administrator should enter values for the applicable parameters in the Value field of the Parameters block.</p> <ul style="list-style-type: none"> • Parameter Value (Optional) – The value for the Parameter Name specified.
Select the OK command button.	<p>The item should be added to the menu at the level specified (either as a child – beneath the item selected; or as a sibling – at the same level as the item selected).</p> <p>This window updates the CAMS_MENU and CAMS_MENU_PARAMETERS tables.</p>

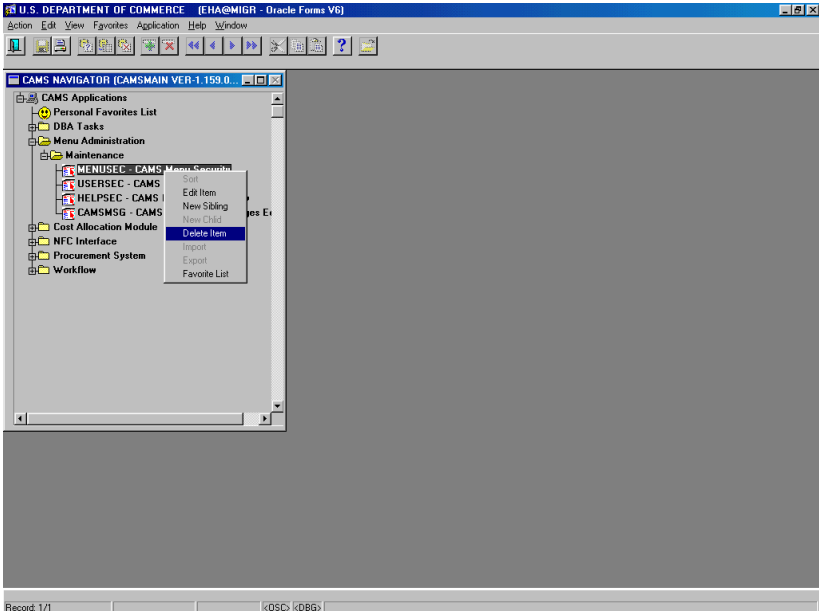
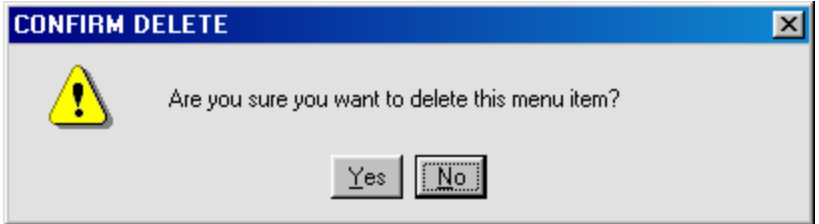
6.1.2 Edit Item

Once created, the menu administrator can change menu items.

Action	Explanation/Result
<p>To edit an existing item on the Navigator menu:</p> <p>Select the item to be changed.</p> <p>Left click on the item to select it.</p> <p>Right click on the item to activate the pull-down menu.</p> <p>Select the Edit Item option from the pull-down list.</p>	 <p>The screenshot shows the CAMS NAVIGATOR (CAMSMAIN VER-1.159.0.13) window. The menu structure is visible on the left, and the 'Edit Item' option is highlighted in the pull-down menu for the 'MENUSEC - CAMS Menu Security Screen' item.</p>
<p>The Edit Menu Item Screen will be displayed showing the current item definition.</p> <p>Change data using the same rules as defined in Section 6.1.1, New Child/New Sibling.</p>	 <p>The screenshot shows the CAMS NAVIGATOR (CAMSMAIN VER-1.159.0.13) window with the 'Edit Menu Item Screen' dialog box open. The dialog box displays the current item definition for 'MENUSEC - CAMS Menu Security Screen'.</p>
<p>Select the OK command button.</p>	<p>The item should be changed to reflect the modifications made.</p> <p>This window updates the CAMS_MENUS and CAMS_MENU_PARAMETERS tables.</p>

6.1.3 Delete Item

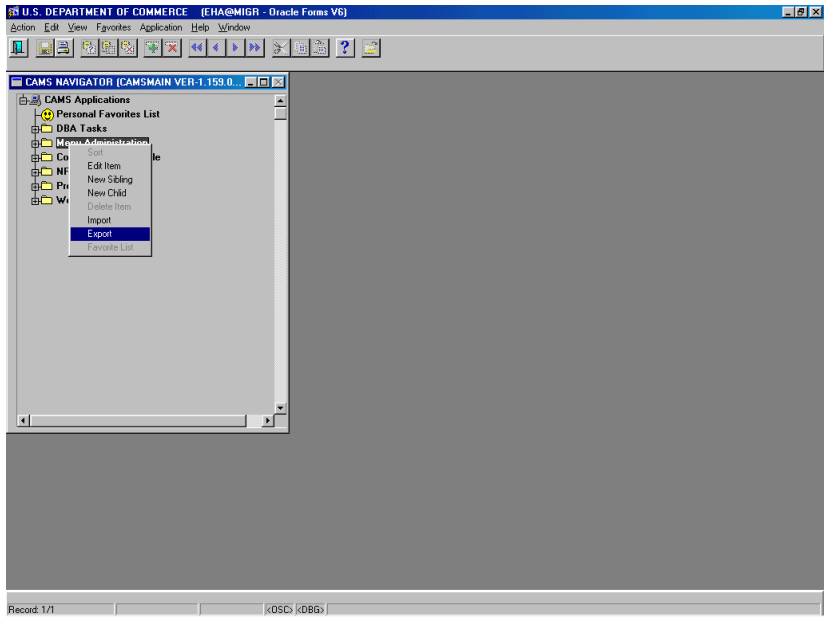
The menu administrator may also delete items from the Navigator. This option is disabled for menu items that have additional items beneath them.

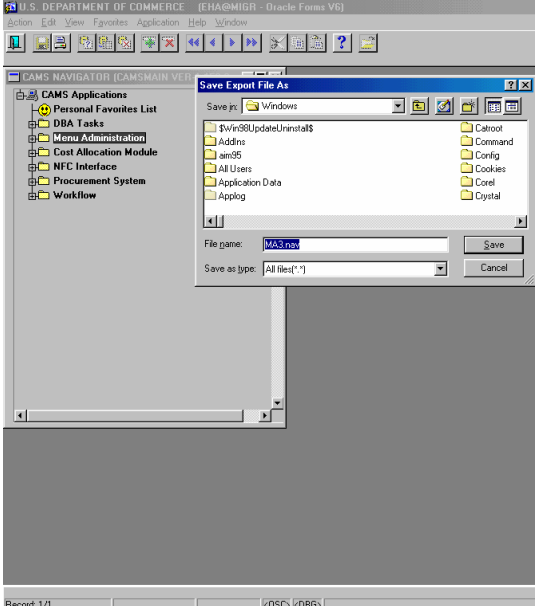
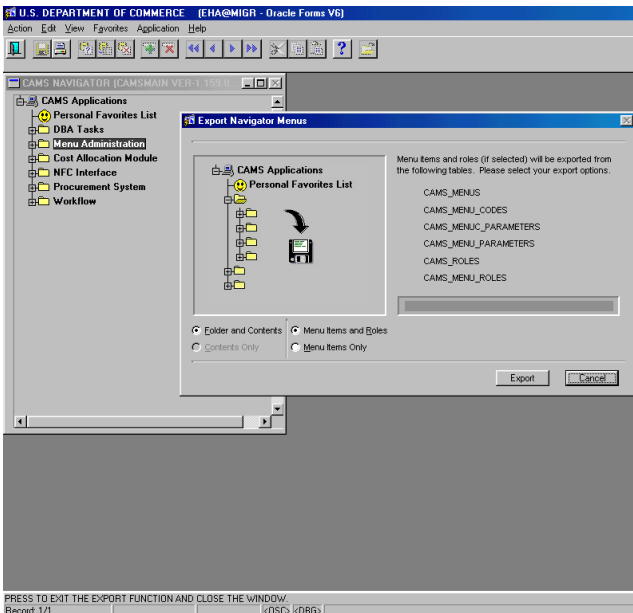
Action	Explanation/Result
<p>To delete an item from the Navigator menu:</p> <p>Select the item to be deleted.</p> <p>Left click on the item to select it.</p> <p>Right click on the item to activate the pull-down menu.</p> <p>Select the Delete Item option from the pull-down list.</p>	
	<p>If the user selects a menu item with no additional items beneath it, the system will display the following message:</p>  <p>Select the Yes command button to delete the menu item.</p> <p>Select the No command button to cancel the delete action.</p>
	<p>If Yes is selected, the item will be deleted from the Navigator.</p> <p>This window updates the CAMS_MENU and CAMS_MENU_PARAMETERS tables.</p>

6.1.4 Export

Menu administrators may export menu folders from the navigator menu to an ASCII flat file. This functionality will allow the menu tree to be easily migrated across instances. The administrator may specify to export only the menu items or the menu items and menu roles. The administrator may then use the 'Import' function to import these menu items and roles. Only folders (and their contents) may be exported. Individual forms, reports, or windows applications may not be exported. All parameters that pertain to individual menu items will be saved in the export.

NOTE: Due to security concerns, only 'root' users in client-server mode can export menu items.

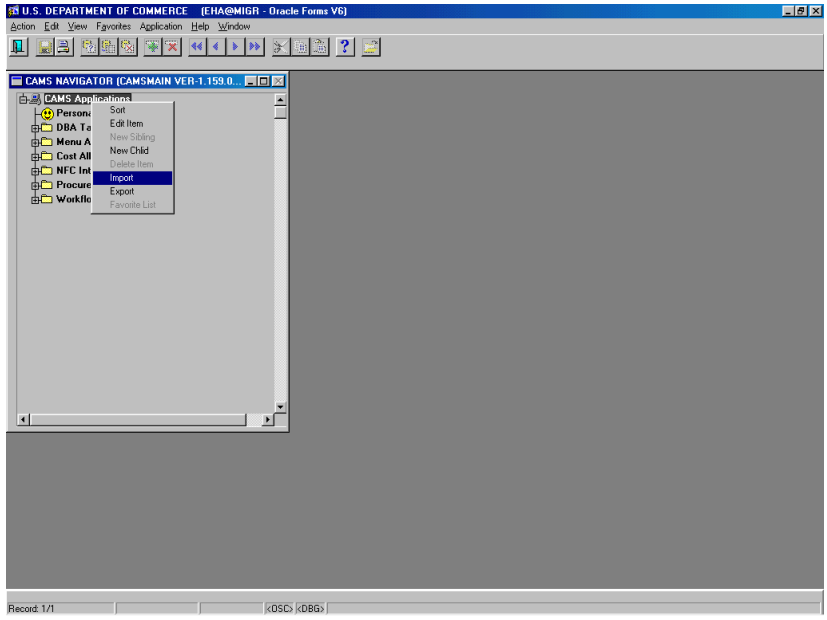
Action	Explanation/Result
<p>To export a folder from the navigator menu.</p> <p>Select the folder to be exported. (Note: the entire menu structure can be exported by selecting CAMS Applications)</p> <p>Left click on the item to select it.</p> <p>Right click on the item to activate the pull-down menu.</p> <p>Select the Export option from the pull-down list.</p>	 <p>The screenshot shows the CAMS Navigator application window. The title bar reads 'U.S. DEPARTMENT OF COMMERCE [EHA@MIGR - Oracle Forms V6]'. The menu bar includes 'Action', 'Edit', 'View', 'Favorites', 'Application', 'Help', and 'Window'. The toolbar contains various icons for file operations. The main window is titled 'CAMS NAVIGATOR (CAMSMAN VER-1.159.0.)'. On the left, a tree view shows the menu structure: 'CAMS Applications' (expanded), 'Personal Favorites List', 'DBA Tasks', 'Menu Administration', 'Co', 'NF', 'Pi', and 'W'. The 'Menu Administration' folder is selected, and its pull-down menu is open, showing options: 'Edit Item', 'New Sibling', 'New Child', 'Delete Item', 'Import', and 'Export'. The 'Export' option is highlighted. The status bar at the bottom shows 'Record: 1/1' and '<DBG>'.</p>

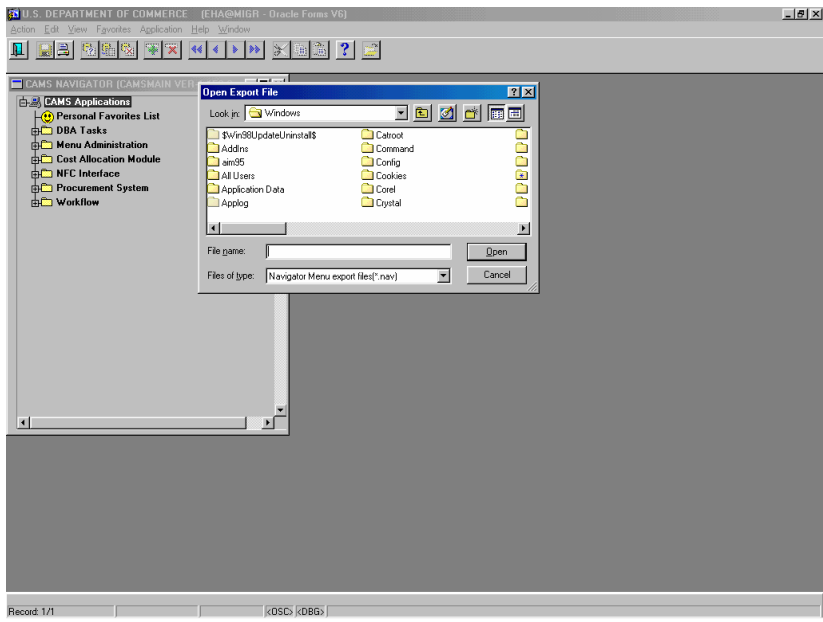
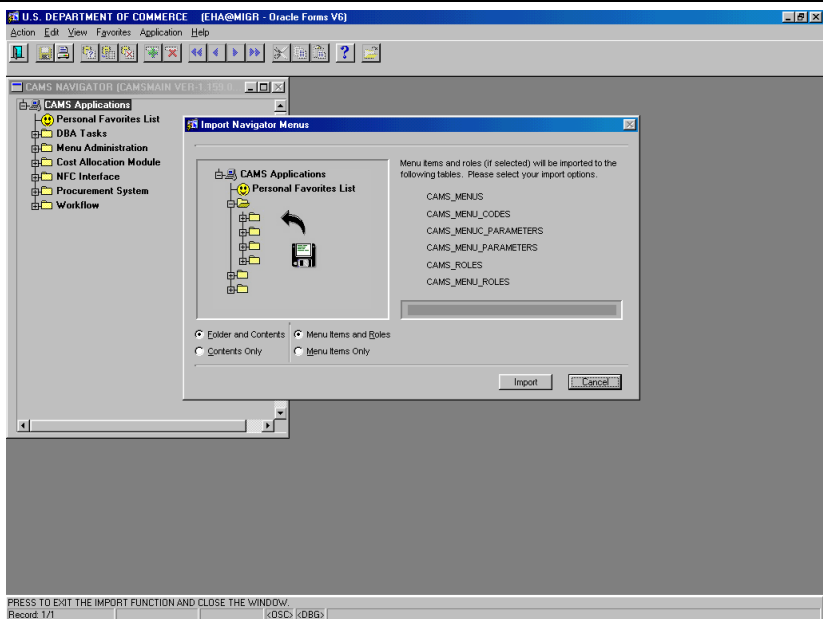
Action	Explanation/Result
<p>The system will then prompt you to specify the desired file name of the ASCII flat file that will be created for the exported folder.</p> <p>The default file name is a concatenated combination of the menu code, menu ID, and the .nav file extension</p>	
<p>Specify if the export is to contain Menu Items and Roles, or only Menu Items.</p> <p>Click the Export button.</p> <p>The system will prompt you once the export has been completed.</p> <p>NOTE: All parameters that are assigned to a menu item will be saved in the export file.</p>	

6.1.5 Import

Once a navigator menu folder has been exported into a flat file it may be imported into any CAMS instance with the navigator menu installed (including the originating instance). The administrator may specify to import only the menu items or the menu items and menu roles contained in the export file. In addition, the administrator may specify to import the original folder itself and its contents or only the contents. If the administrator desires to import only the folder contents, all contents of the exported folder will be placed in the selected folder. Any parameters that were saved in the export will be imported for new items. If any of the imported contents already exist in the desired folder, the system will not overwrite the existing data.

NOTE: Due to security concerns, only 'root' users in client-server mode can import menu items.

Action	Explanation/Result
<p>To import a folder to the navigator menu.</p> <p>Select the folder that you wish the imported menu items to be placed.</p> <p>Left click on the item to select it.</p> <p>Right click on the item to activate the pull-down menu.</p> <p>Select the Import option from the pull-down list.</p>	 A screenshot of the CAMS NAVIGATOR application window. The window title is "U.S. DEPARTMENT OF COMMERCE [EHA@MIGR - Oracle Forms V6]". The menu bar includes "Action", "Edit", "View", "Favorites", "Application", "Help", and "Window". The toolbar contains various icons for file operations. The main window is titled "CAMS NAVIGATOR (CAMSMAN VER-1.159.0)". On the left, a tree view shows a hierarchy of folders: "CAMS Applications", "Person", "DBA To", "Menu A", "Cost All", "NFC Int", "Procure", and "Workflo". The "Menu A" folder is selected, and a context menu is open over it, showing options: "Sort", "Edit Item", "New sibling", "New Child", "Delete Item", "Import", "Export", and "Favorite List". The "Import" option is highlighted. The status bar at the bottom shows "Record: 1/1" and "«OSC» «DBG»".

Action	Explanation/Result
<p>The system will then prompt you to specify the ASCII flat file to be imported.</p>	
<p>Specify if the import is to contain Menu Items and Roles or only Menu Items.</p> <p>Specify if the exported root folder and contents or just the contents are to be imported.</p> <p>Click the Import button.</p> <p>The system will prompt you once the import has been completed.</p>	

6.2 Menu Role and Navigator User Maintenance

Once items are defined for the Navigator, they must be assigned to menu roles that determine which users will have access to them. A role may be defined for a specific category of users (for example Contracting Officer, Procurement Specialist, Finance Officer, etc.). One or more of these roles would be assigned to a user as appropriate. These same roles are then assigned to menu items, forms, and reports as appropriate. For example, a Contracting Officer would have access to the Purchase Order screen (FM041) but not to the Vendor Invoice Transaction screen (PM003). Access to functionality is determined by the user having the same roles assigned as required for the menu, form, or report. Figure 5 illustrates the association between menu roles assigned to users and those assigned to menu items.

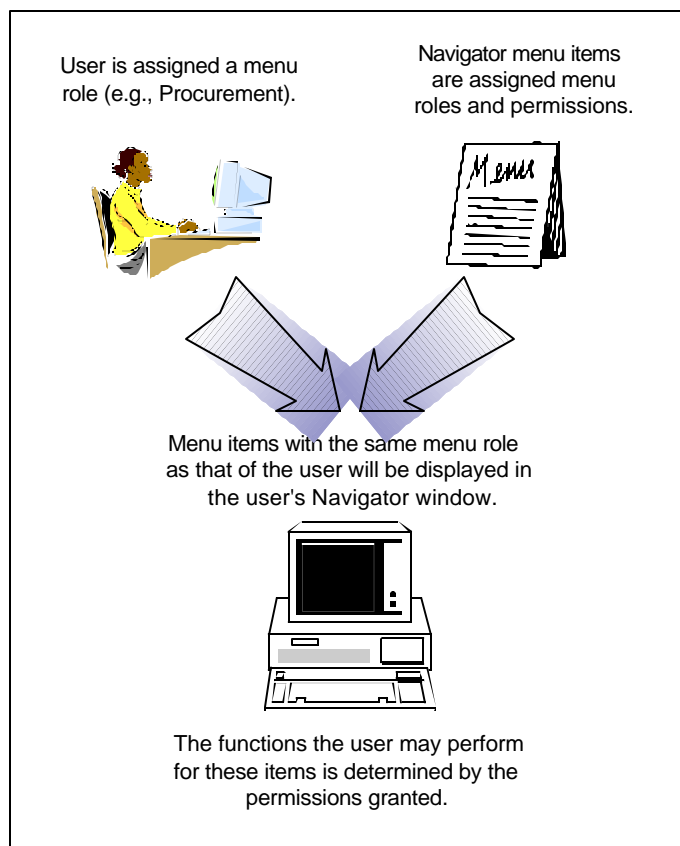


Figure 5: Menu Role Associations Between Users and Menu Items


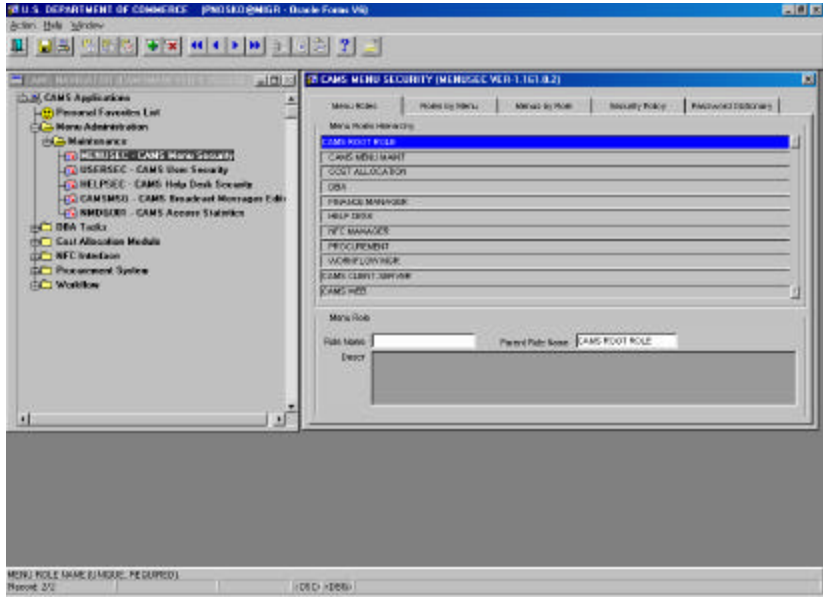
6.2.1 MENUSEC


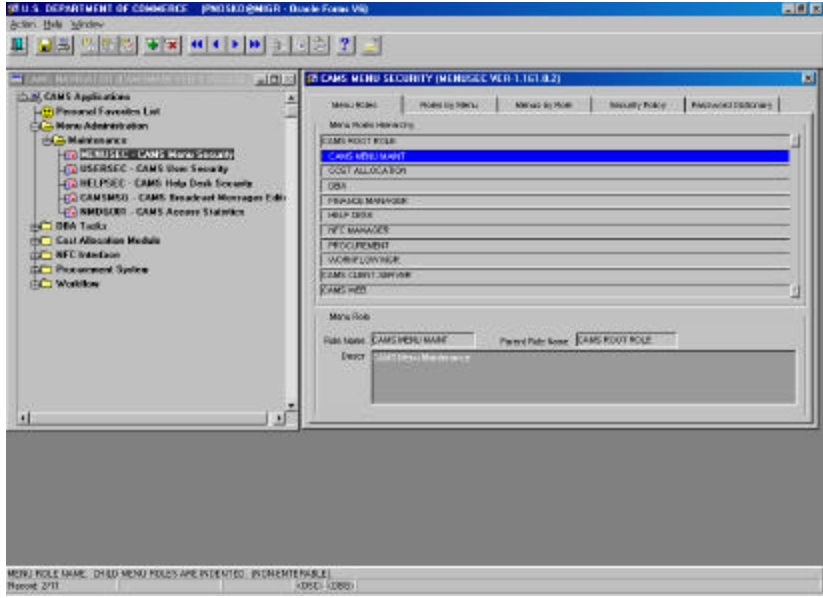

The CAMS Menu Security Screen (MENUSEC) is used to perform numerous menu maintenance options pertaining to menu roles, menu items, and security items. This screen is broken out into four separate tabs, Menu Roles, Roles by Menu, Menus by Role, and Security Policy. Each of these tabs will be discussed in this section.



6.2.1.1 Menu Roles Tab

The Menu Roles tab allows you to view the existing Menu Roles, modify them, add new roles, and delete roles.

Menu roles may be created to delineate which functions are accessible for various user groups. The following table describes the steps necessary to create a menu role.

Action	Explanation/Result
<p>To add a new menu role, select the plus sign icon from the toolbar while on the Menu Roles tab of MENUSEC.</p> 	<p>This will enable entry in the bottom, Menu Role, portion of the window and populate the Parent Role Name field.</p>  <p>NOTE: The top portion of the screen reflects the menu roles hierarchy currently defined. Note that child roles are indented beneath the parent role.</p> <p>The following fields may be entered:</p> <p>Role Name (Mandatory) – Defines the name of the role. Cannot be the same as one already defined.</p> <p>Parent Role Name (Mandatory) – Defines the name of the parent for the role. This Role Name must already exist within the CAMS_ROLES table. If the Parent Role is assigned to a user, all child Role Names assigned to it will be assigned to the user by default.</p> <p>Descr (Optional) – A more complete description of the role being defined.</p>

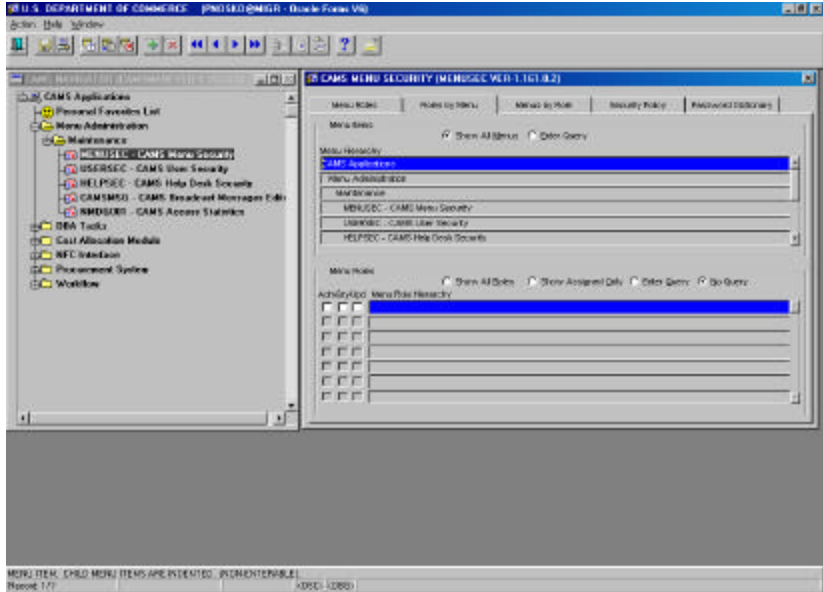
Action	Explanation/Result
<p>Select the save icon from the toolbar.</p> 	<p>The new role will be added and will appear in the upper portion, Menu Roles Hierarchy, of the screen. It will automatically be assigned to all users of the Parent Role.</p> <p>This data is stored in the CAMS_ROLES table.</p> <p>Once a role is defined, the Role Name cannot be changed. Any changes to the Role Name must be performed by first deleting the role and then adding a new one and reassigning it to users and menu items.</p>
<p>To modify a role, highlight the row to be modified.</p>	<p>The detailed information associated with the role will be displayed in the bottom, Menu Role, portion of the window.</p> 
<p>Modify the Descr field and select the Save icon from the toolbar.</p> 	<p>Note that only the Descr of the role may be modified.</p>

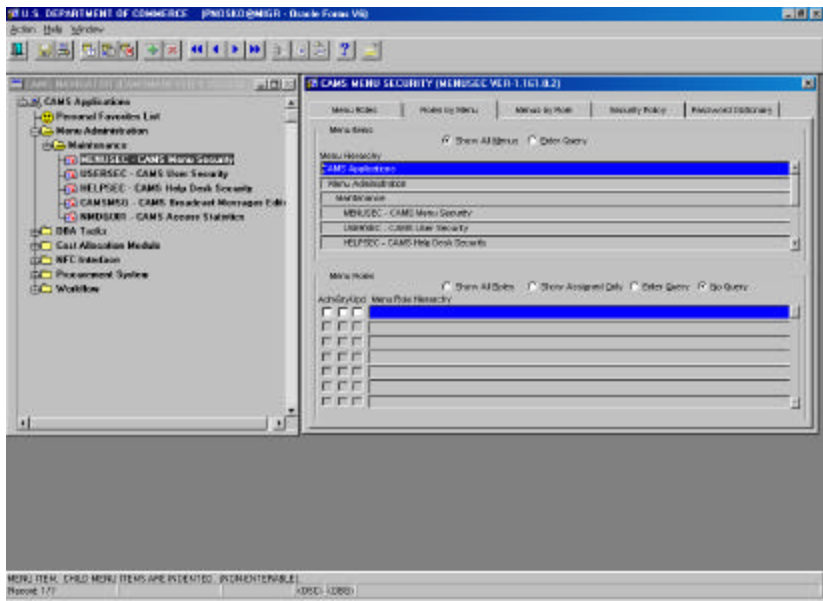
Action	Explanation/Result
<p>To delete a role, select the role to be deleted by clicking on it with the left mouse button.</p> <p>Select the delete icon from the toolbar.</p> 	<p>The role will be deleted from the list of roles at the top of the screen.</p> <p>Note, that a prompt will be displayed requesting confirmation of the delete action if any of the following conditions exists:</p> <ul style="list-style-type: none"> • The role is currently assigned to one or more users, • The role is assigned to one or more menu items, or <p>The role is a parent role with child roles assigned to it.</p>
<p>Click 'Yes' on the warning prompt</p>	<ul style="list-style-type: none"> • A message will appear verifying that the user wants to delete the menu role. Select 'Yes' to continue.
<p>Select the close window button in the upper right corner of the screen to close the window.</p> 	<p>The window will be closed.</p>

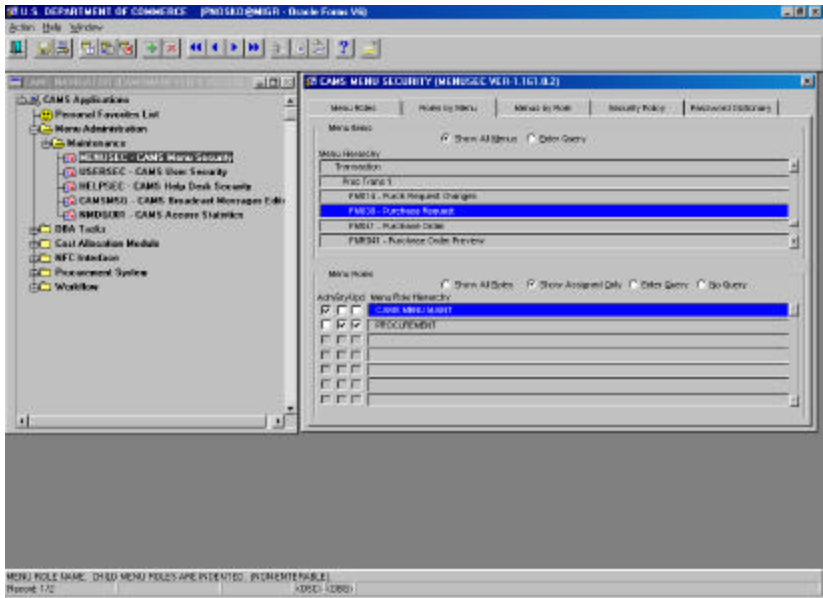
6.2.1.2 Roles by Menu Tab

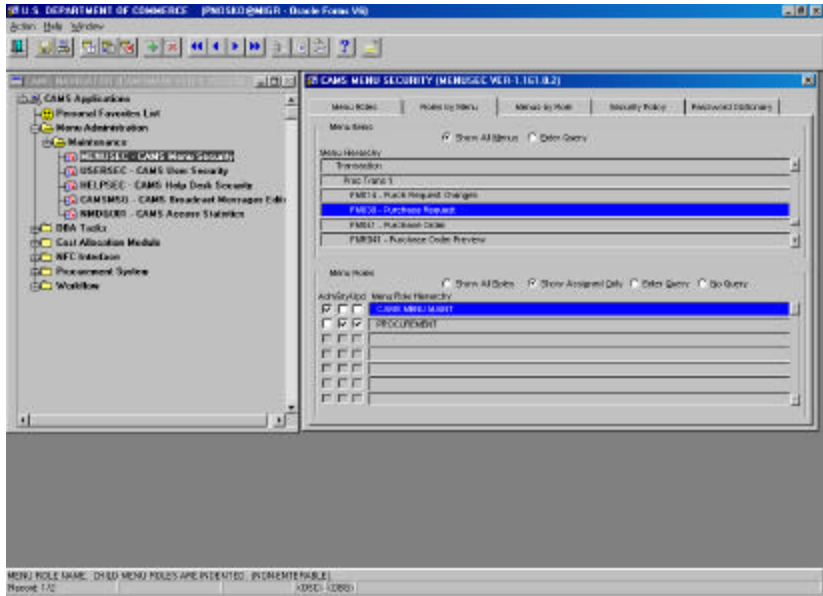
The Roles by Menu tab allows you to select a Menu Item and view the roles that have been granted privileges to Administer, Query, and/or Update that menu item. This tab also allows authorized users to modify those permissions.


Roles may also be assigned to menu items through either the Roles by Menu tab or the Menus by Role tab. The following table illustrates the steps required to assign a role to a menu item via the Roles by Menu tab.

Action	Explanation/Result
<p>To assign a role to a menu item:</p> <p>Click on the Roles by Menu tab of MENUSEC.</p>	<p>The top portion of the window (Menu Items) reflects the menus and submenus that have been defined (refer to Section 6.1, Maintaining Menu Options, for instructions on how to create and maintain menu items).</p> <p>There are two radio buttons in the Menu Roles portion of the window:</p> <p>Show All Menus Will show all of the available menu items.</p> <p>Enter Query Allows a user to search for a specific menu.</p> <p>The bottom portion of the window (Menu Roles) reflects the roles that have been created (refer to Section 6.2.1.1 for instructions on how to create and maintain roles).</p> 

Action	Explanation/Result
Highlight the menu item for which roles should be assigned.	 <p>When a menu item is highlighted in the top portion of the window, all of the menu roles will be displayed in the bottom, Menu Roles, portion of the window with the permissions assigned for the corresponding role.</p> <p>There are four radio buttons in the Menu Roles portion of the window:</p> <ul style="list-style-type: none"> Show All Roles Will show all of the roles whether they are assigned to the Menu Item or not. Show Assigned Only Will only show those roles assigned to the selected menu item Enter Query Allows a user to search for a specific role. No Query No items will be shown (default).

Action	Explanation/Result
Select the desired privileges for this menu item by clicking on the checkboxes in the bottom portion of the screen.	<p>A check mark will appear in the appropriate box indicating whether the corresponding Role has Adm, Qry, or Update privileges for the selected menu item.</p> 

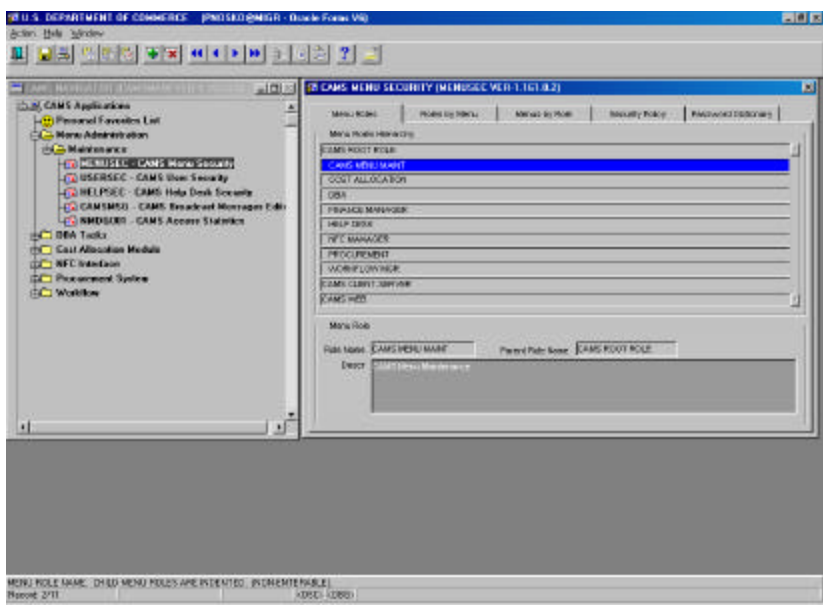
Action	Explanation/Result
Uncheck any permissions that should be removed for the role.	 <p>There are three permission levels that may be granted a role for accessing a program:</p> <p>Adm – The Menu Administration permission allows the user to maintain the menu attributes of the program.</p> <p>Qry – The Query permission allows the user to have read-only access to the program.</p> <p>NOTE: Query-only functionality will only work with forms that have been specifically designed to operate in query-only mode.</p> <p>If a user is granted query-only permission to a form that is not designed to allow query-only operation, the screen will not open and the following error message will appear: “No such parameter named NAV_QUERY_ONLY exists in form <FORM NAME>.”</p> <p>Future development should take into consideration the ability of forms to be opened in either update or query-only mode.</p> <p>Upd – The Update permission allows the user to have read/update access to the program.</p> <p>If a new child menu item is added to a folder, it will inherit all of the role privileges of its parent folder.</p>

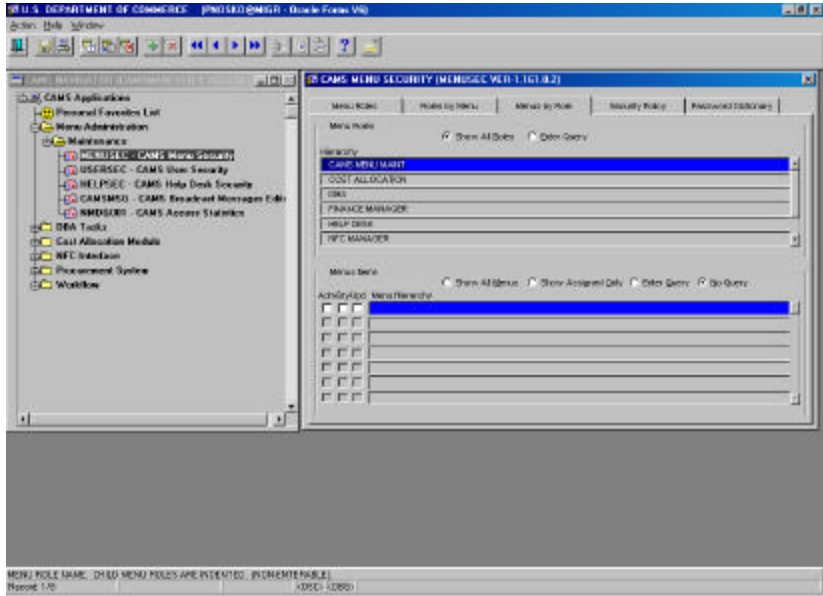
Action	Explanation/Result
The save icon from the toolbar is inactive. All changes are automatically saved.	Any changes to role assignments for the menu items are automatically saved as soon as a change is made. The save icon is inactive on this tab. This data is stored in the CAMS_ROLE_MENUS table.
Select the close window button in the upper right corner of the screen to close the window. 	The window will be closed.

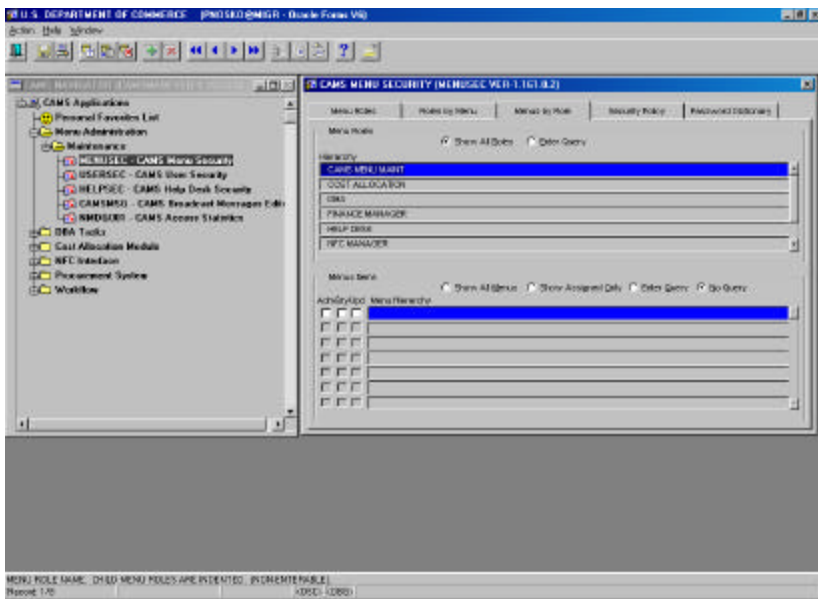
6.2.1.3 Menus by Role

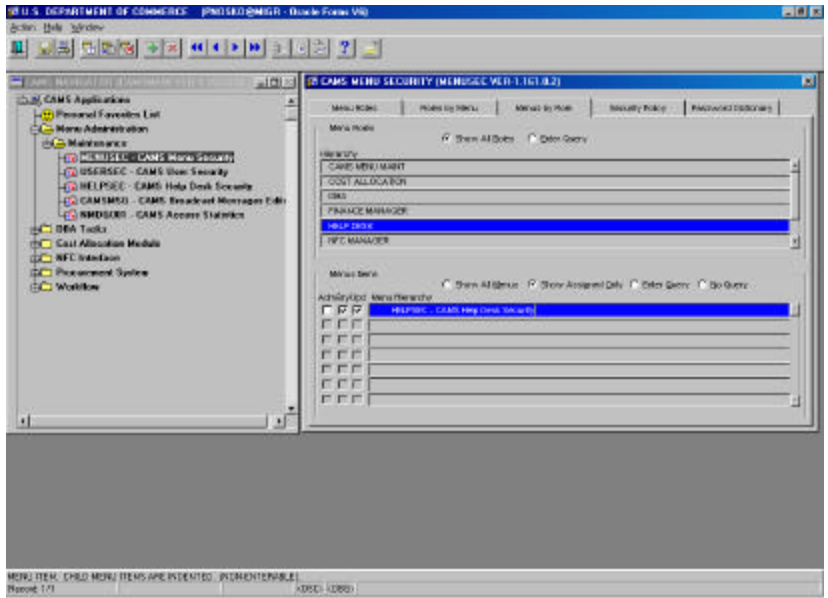
The Menus by Role tab allows you to select a Menu Role and view whether a menu item has been associated with the role or not. This tab allows authorized users to modify those associations.

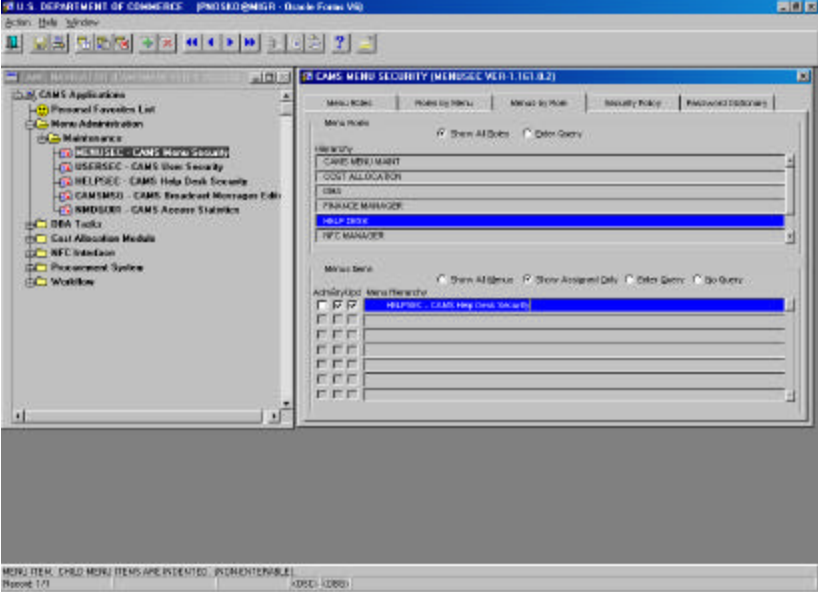
Roles may also be assigned to menu items through either the Roles by Menu tab or the Menus by Role tab. The following table illustrates the steps required to assign a role to a menu item via the Menus by Role tab.


Action	Explanation/Result
<p>To assign a role to a menu item:</p> <p>Expand the Menu Administration and Maintenance menu options.</p> <p>Double-click on the MENUSEC – CAMS Menu Security option.</p>	<p>The CAMS Menu Security screen will be displayed with the Menu Roles tab active.</p> 

Action	Explanation/Result
<p>To assign a role to a menu item:</p> <p>Click on the Menus by Role tab of MENUSEC.</p>	<p>The top portion of the window (Menu Roles) reflects the roles that have been created (refer to Section 6.2.1.1 for instructions on how to create and maintain roles).</p> <p>Show All Roles Will show all available menu roles.</p> <p>Enter Query Allows the user to search for a specific menu role.</p> <p>The bottom portion of the window (Menu Items) reflects the menus and submenus that have been defined (refer to Section 6.1, Maintaining Menu Options, for instructions on how to create and maintain menu items).</p> 

Action	Explanation/Result								
Highlight the menu role for which menu items should be assigned.	 <p>When a menu role is highlighted in the top portion of the window, all of the menu items will be displayed in the bottom, Menu Items, portion of the window with the permissions assigned for the selected role and corresponding menu item.</p> <p>There are four radio buttons in the Menu Items portion of the window:</p> <table> <tbody> <tr> <td>Show All Menus</td><td>Will show all of the menu items whether they are assigned to the selected role or not.</td></tr> <tr> <td>Show Assigned Only</td><td>Will only show those menu items assigned to the selected role.</td></tr> <tr> <td>Enter Query</td><td>Allows the user to search for a specific menu item.</td></tr> <tr> <td>No Query</td><td>No items will be shown (default).</td></tr> </tbody> </table>	Show All Menus	Will show all of the menu items whether they are assigned to the selected role or not.	Show Assigned Only	Will only show those menu items assigned to the selected role.	Enter Query	Allows the user to search for a specific menu item.	No Query	No items will be shown (default).
Show All Menus	Will show all of the menu items whether they are assigned to the selected role or not.								
Show Assigned Only	Will only show those menu items assigned to the selected role.								
Enter Query	Allows the user to search for a specific menu item.								
No Query	No items will be shown (default).								

Action	Explanation/Result
Check the appropriate permission to be granted next to the menu item for the selected menu role.	<p>A check mark will appear in the appropriate box indicating whether the selected Menu Role has Adm, Qry, or Update privileges for the corresponding menu item.</p> 

Action	Explanation/Result
<p>Uncheck any permissions that should be removed for the selected role.</p>	 <p>There are three permission levels that may be granted a role for accessing a menu item:</p> <p>Adm – The Menu Administration permission allows the user to maintain the menu attributes of the program.</p> <p>Qry – The Query permission allows the user to have read-only access to the program.</p> <p>NOTE: Query-only functionality will only work with forms that have been specifically designed to operate in query-only mode.</p> <p>Upd – The Update permission allows the user to have read/update access to the program.</p> <p>Note: Qry and Upd privileges may be applied to all menu items. When either privilege is assigned to a folder, all menu items in that folder will gain that privilege. Conversely, if a privilege is revoked from a folder, all menu items in that folder lose the privilege.</p>
<p>The save icon from the toolbar is inactive. All changes are automatically saved.</p>	<p>Any changes to role assignments for the menu items are automatically saved as soon as a change is made. The save icon is inactive on this tab.</p> <p>This data is stored in the CAMS_ROLE_MENUS table.</p>

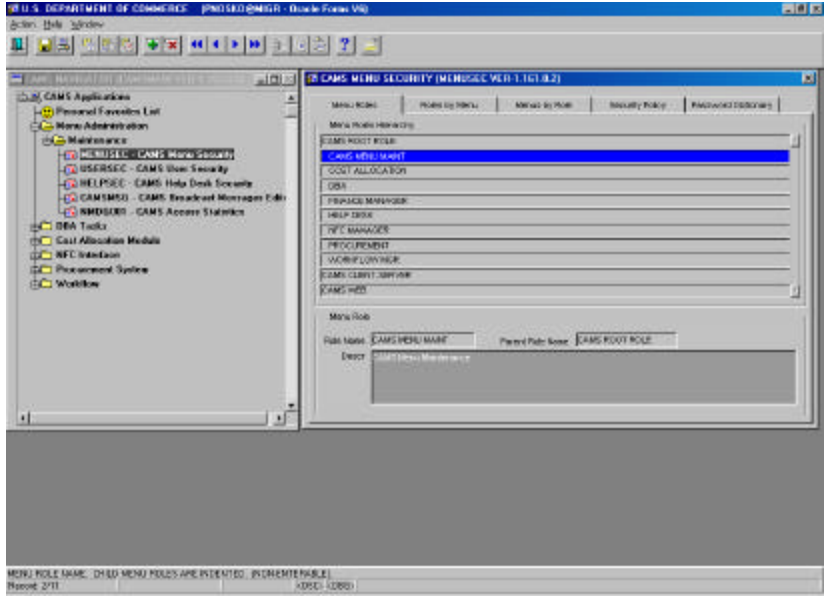
Action	Explanation/Result
Select the close window button in the upper right corner of the screen to close the window. 	The window will be closed.

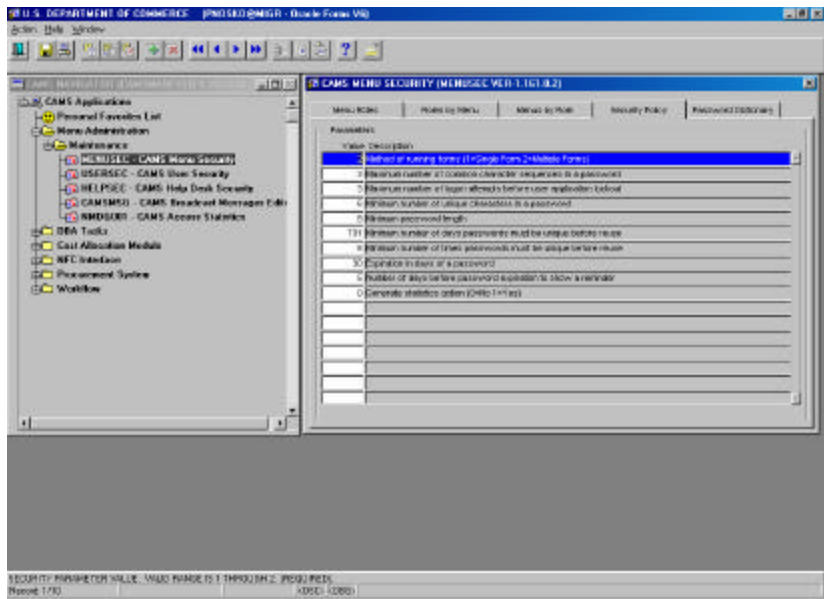
6.2.1.4 Security Policy

The Security Policy tab allows you to set parameter values for:


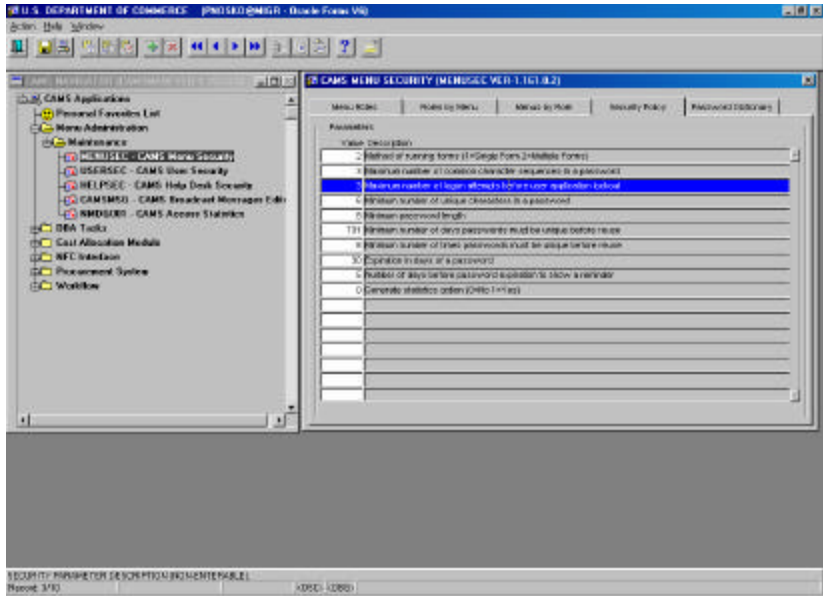

- Method of Running Forms (1=Single Forms 2=Multiple Forms)
- Maximum number of common character sequences in a password
- Maximum number of logon attempts before user application lockout
- Minimum number of unique characters in a password
- Minimum password length
- Minimum number of days passwords must be unique before reuse
- Minimum number of times passwords must be unique before reuse
- Expiration in days of a password
- Number of days before password expiration to show a reminder
- Generate statistics option (0=No 1=Yes)

To provide flexibility in specifying security policy parameters, the MENUSEC screen allows you to change the values of several security parameters. The following table describes how to set the various security settings in the 'Security Policy' tab.

Action	Explanation/Result
<p>To change a security parameter value:</p> <p>Expand the Menu Administration and Maintenance menu options.</p> <p>Double-click on the MENUSEC – CAMS Menu Security option.</p>	<p>The CAMS Menu Security screen will be displayed with the Menu Roles tab active.</p> 

Action	Explanation/Result
<p>Click on the Security Policy tab.</p>	<p>The window reflects the values and descriptions of the security parameters.</p>  <p>The security parameter descriptions are static and may not be changed. The value ranges described below (also shown in the hint text) are enforced. These parameters are defined as follows:</p> <ul style="list-style-type: none"> • Method of Running Forms (1=Single Form 2=Multiple Forms) – Should be set to either 0 or 1. If 1 is selected, users will only be permitted to run a single form at any one given time. If 2 is selected, users will be permitted to run multiple forms concurrently. • Maximum number of common character sequences in a password – Should be set to either 2 or 3. The default value initially loaded is 3. When set to 3, up to three consecutive common character sequences may be used in a password (e.g., ABC is allowed; ABCD is not). • Maximum number of logon attempts before user application lockout – Should be set to 0 to disable or a value from 1 through 9. The default value initially loaded is 3. • Minimum number of unique characters in a password – Should be set to a value from 6 through the minimum password length setting. The default value initially loaded is 6. When set to 6, at least six of the characters in a password may be used only once. • Minimum password length – Should be set to a value from 8 through 30, the Oracle maximum. The default value initially loaded is 8.
<p>March 12, 2003 Version 1.9</p>	<p>83</p> <p>CAMS Navigator Menu Users Guide</p>

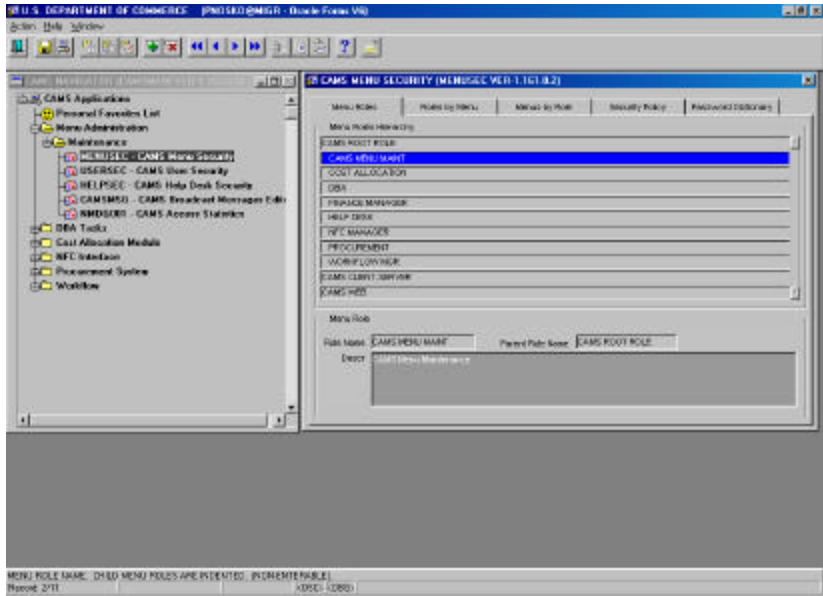
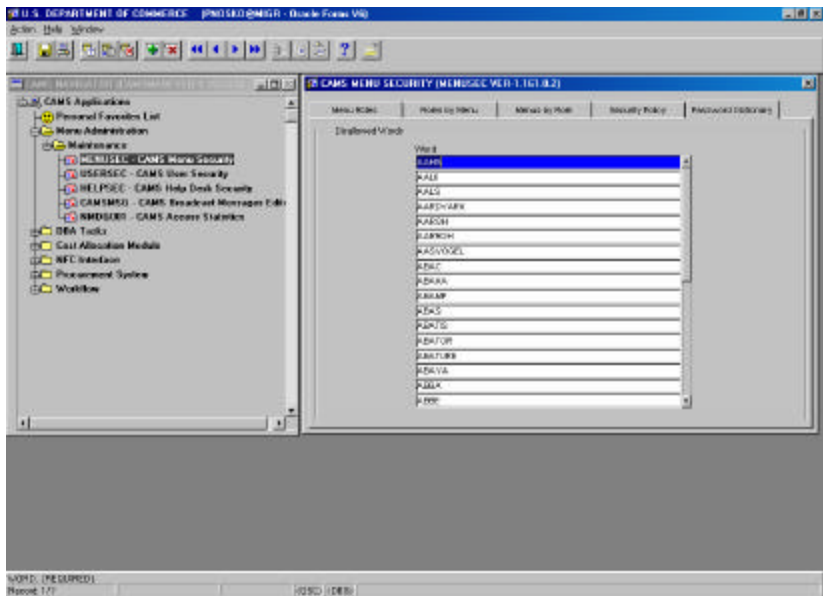
Action	Explanation/Result
	<ul style="list-style-type: none"> • Minimum number of days passwords must be unique before reuse – Should be set to a value from 731 (two years) through 9999. The default value initially loaded is 731. All of a user's passwords created in this timeframe must be unique. Note that this policy is in addition to the next policy. • Minimum number of times passwords must be unique before reuse – Should be set to a value from 8 through 9999. The default value initially loaded is 8. When set to 8, users may not reuse their current or previous seven passwords when changing their password. Note that this policy is in addition to the previous policy. • Expiration in days of a password – Should be set to a value from 1 through 90. The default value initially loaded is 90. • Number of days before password expiration to show a reminder – Should be set to 0 to disable or a value from 1 through 90. The default value initially loaded is 5. • Generate statistics option (0=No 1=Yes) – Should be set to either 0 or 1. The default value initially loaded is 0. Note that when set to 1, statistics are only generated for menu items where application and subsystem codes have been entered. <p>The Security Policy tab allows select individuals at the Bureaus to control the values of five password security parameters. All of the security parameters can be changed at any point in time, but may or may not take effect depending upon when individual passwords are established.</p> <p>The 'Maximum number of common character sequences in a password', 'Minimum number of unique characters in a password', 'Minimum password length' and 'Expiration in days of a password' are set for a password at the time it is created. If any of these parameters are changed, they will not affect the users' current passwords. These new settings will be applied to all passwords created after the parameter changes have been saved.</p> <p>The 'Maximum number of logon attempts before user application lock out', 'Minimum number of days password must be unique before reuse', 'Minimum number of times passwords must be unique before reuse' and 'Number of days before password expiration to show a reminder' can be changed at any time and will immediately affect all passwords previously created and all password to be created in the future.</p>


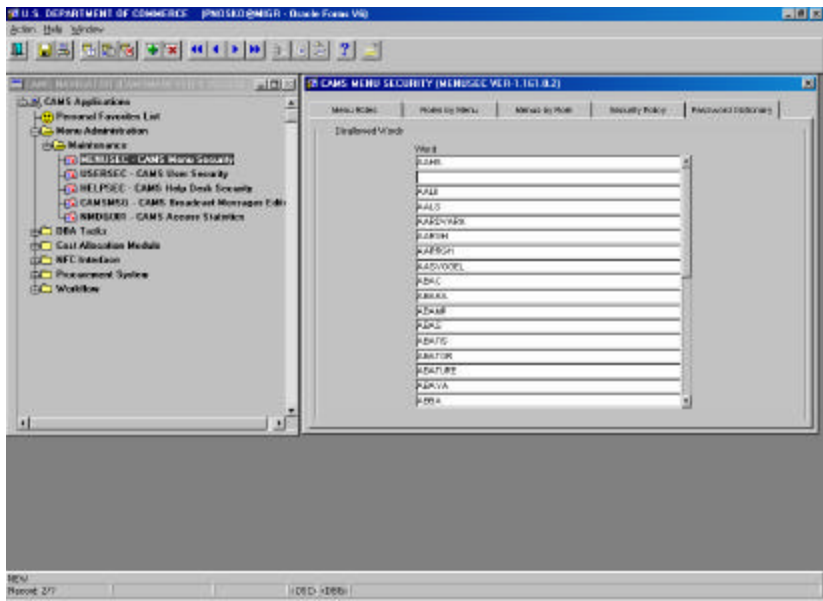
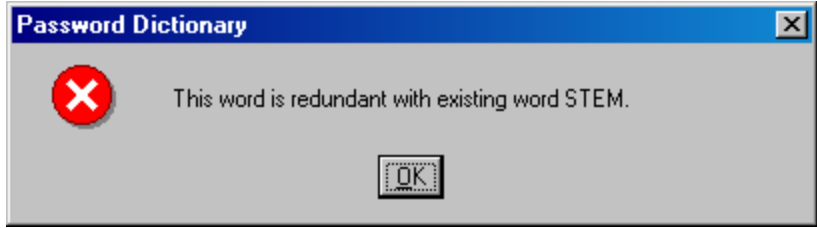
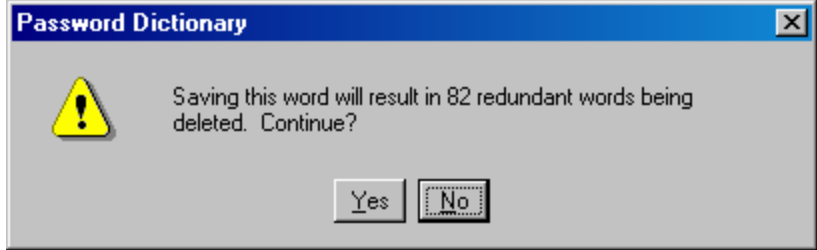
Action	Explanation/Result
<p>Modify the value of the parameter(s) as appropriate and select the Save icon from the toolbar.</p> 	<p>The changes will be saved.</p> 
<p>Select the close window button in the upper right corner of the screen to close the window.</p> 	<p>The window will be closed.</p>


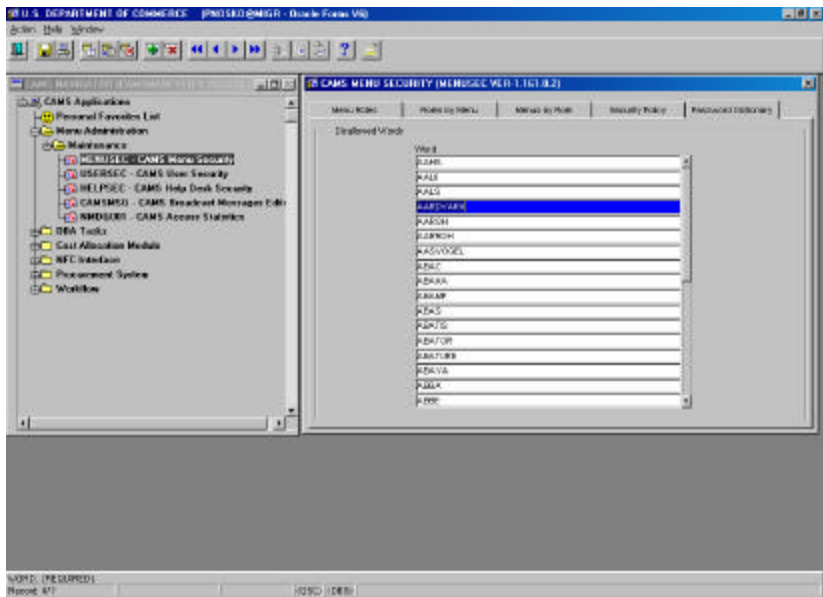
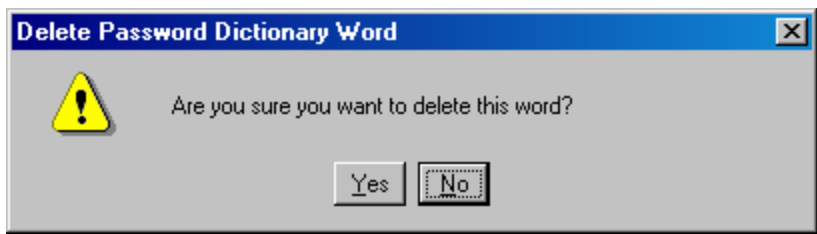

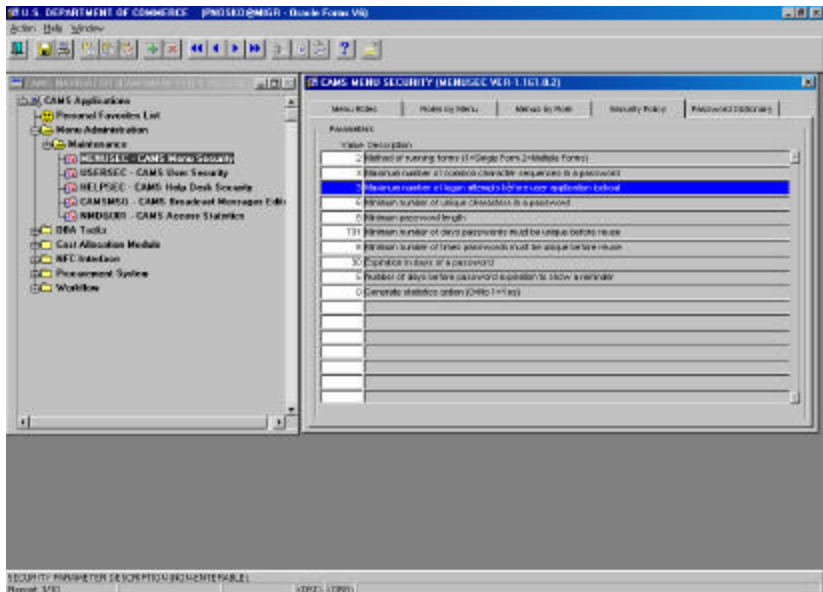
6.2.1.5 Password Dictionary


6.2.1.6 The Password Dictionary tab allows you to maintain a list of words that users may not use in whole or as part of their password. Words added to the default list provided at installation must be greater than a single character. The default list contains a comprehensive list of English words 4-30 characters in length, with redundant words removed. A redundant word is one that contains some other word. For example, the word "ABSENT" is not contained in the default list because the word "SENT" exists (if a password does not contain "SENT", checking for "ABSENT" is redundant). If a word is added that is contained in other existing words, those words will be deleted (after a confirmation).

The following table describes how to maintain the password dictionary word list on the 'Password Dictionary' tab.

Action	Explanation/Result
<p>To update the password dictionary:</p> <p>Expand the Menu Administration and Maintenance menu options.</p> <p>Double-click on the MENUSEC – CAMS Menu Security option.</p>	<p>The CAMS Menu Security screen will be displayed with the Menu Roles tab active.</p> 
<p>Click on the Password Dictionary tab.</p>	<p>The window reflects the list of words in the password dictionary.</p> 

Action	Explanation/Result
<p>To add a new word, select the plus sign icon from the toolbar while on the Password Dictionary tab of MENUSEC.</p> 	<p>This will insert a blank row after the current record and allow entry of a new word.</p>  <p>Word (Mandatory) – defines a word that may not be used in whole or part of a password. If the word contains another existing word, an error message will appear informing the user that the word is redundant and cannot be added. For example, adding the word “SYSTEMATIC” results in</p>  <p>If the word is contained in other existing words, a confirmation prompt will be displayed informing the user that redundant words will be deleted if the new word is confirmed. For example, adding the word “AGE” results in</p>  <p>If the user responds with ‘Yes’, the redundant words will be deleted. Deleted words may remain in the queried list until a new query is performed.</p>

Action	Explanation/Result
<p>To delete To a word, select the minus sign icon from the toolbar while after navigating to the word to be deleted.</p> 	 <p>A confirmation prompt is displayed.</p>  <p>If 'Yes' is selected, the word will be deleted.</p>
<p>When an existing word is added or modified, select the Save icon from the toolbar.</p> 	<p>The changes will be saved. Changes are saved automatically during record navigation and when a word is deleted.</p> 

Action	Explanation/Result
<p>Select the close window button in the upper right corner of the screen to close the window.</p> 	<p>The window will be closed.</p>

6.2.2 USERSEC



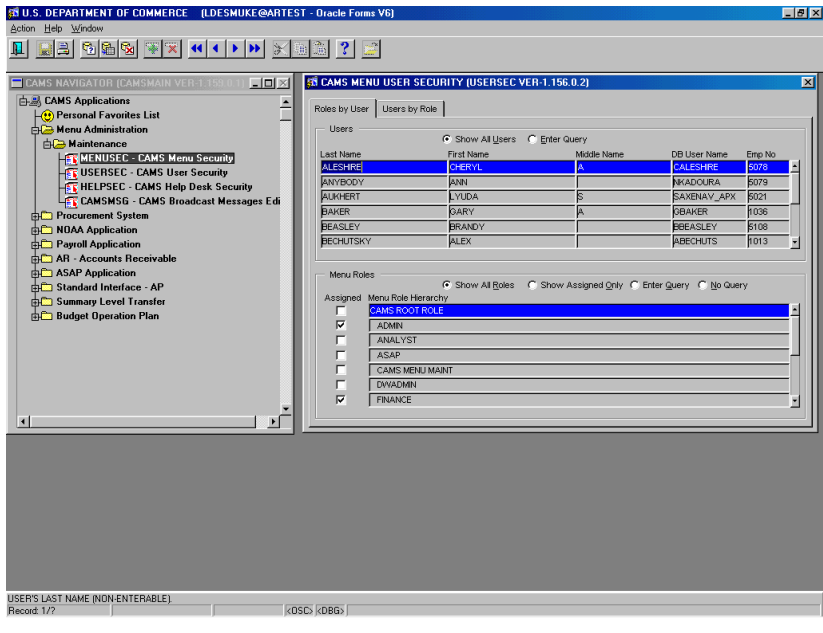
The CAMS User Security Screen (USERSEC) is used to perform numerous menu maintenance options pertaining to users and menu roles. This screen is broken out into two separate tabs, Roles by User and Users by Role. Both tabs will be discussed in this section.

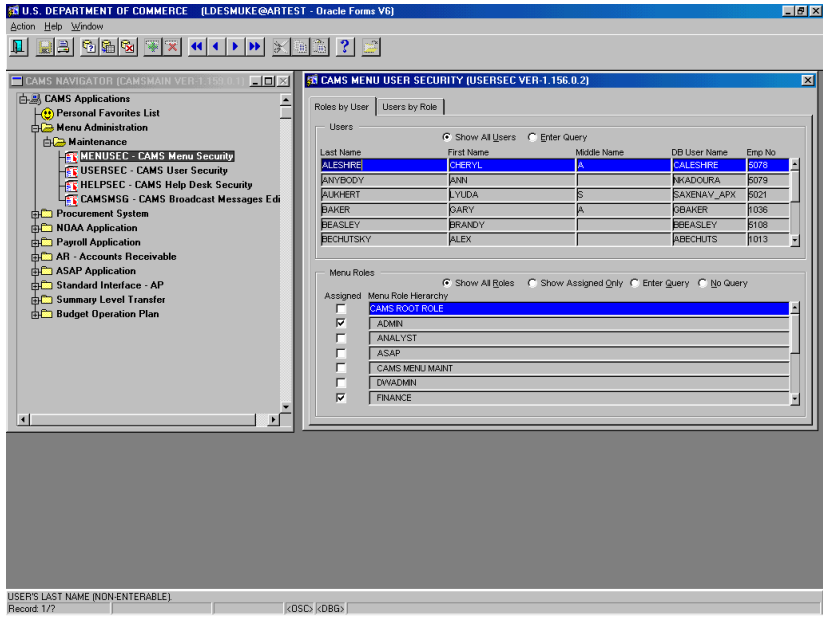
The CAMS User Security menu option launches the CAMS Menu User Security screen consisting of the following two tabs:


6.2.2.1 Roles by User

The Roles by User tab displays a listing of all active employees having an Oracle account. You may select an employee and view the Menu Roles assigned to him/her. This tab allows authorized users to modify those assignments.

Roles may also be assigned to users through either the Roles by User tab or the Users by Role tab. The following table illustrates the steps required to assign a role to a user via the Roles by User tab.

Action	Explanation/Result
<p>Note you may perform a query on Users by first selecting the Enter Query icon from the toolbar:</p>  <p>Enter the user information on which to be queried. Wild cards (%) may be used.</p> <p>Select the Execute Query icon from the toolbar.</p> 	<p>There are four radio buttons in the Menu Roles portion of the window:</p> <p>Show All Roles Will show all of the roles whether they are assigned to the user or not.</p> <p>Show Assigned Only Will only show those roles assigned to the selected user.</p> <p>Enter Query Allows the user to search for a specific menu role.</p> <p>No Query No items will be shown (default).</p> <p>When a user name is selected, the Assigned check box next to the Menu Role will be checked if the menu role is assigned to that user or unchecked if it is not.</p> 

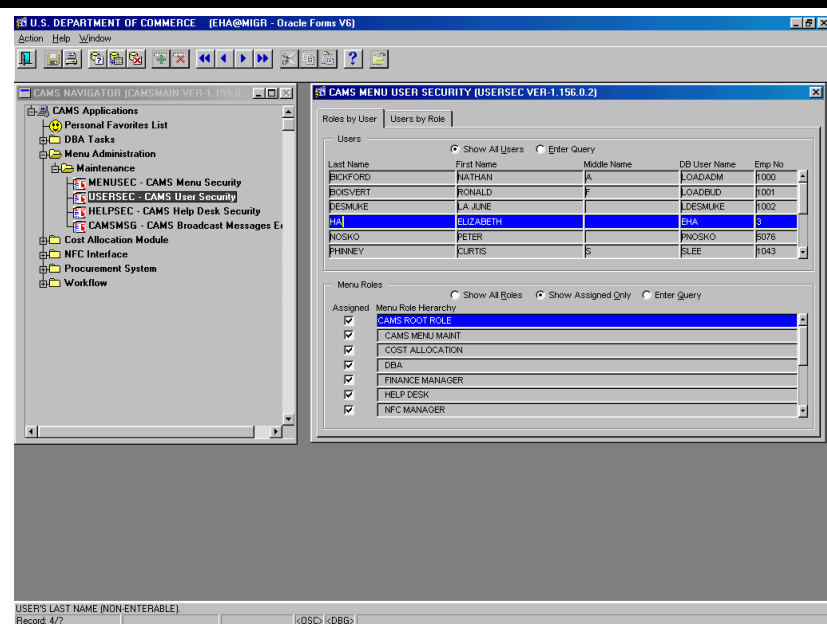
Action	Explanation/Result
<p>Check the Assigned checkbox to assign a role to a user.</p> <p>- or -</p> <p>Uncheck the Assigned checkbox to unassign a role to a user.</p>	<p>Note that roles may be set up as standard roles or parent roles. Roles assigned to a parent role are slightly indented under the parent role.</p> <p>If a parent role is selected and assigned to a user, all roles assigned to that parent are assigned to that user by default. For example, selecting the CFS Root Role will assign all child roles (i.e., CAMS MENU MAINT, COST ALLOCATION, DBA, etc.) to that user as well.</p> <p>If the parent role is unassigned to a user, the child roles remain assigned to that user and must be unassigned one by one.</p> <p>If one child role under a parent that has multiple children is unassigned to a user, the parent role will be automatically unassigned as well. The remaining children under that parent will remain assigned.</p>
 <p>The screenshot displays the 'CAMS MENU USER SECURITY (USERSEC VER-1.156.0.2)' application. On the left is a 'CAMS NAVIGATOR' tree with folders like 'Personal Favorites List', 'Menu Administration', and 'Maintenance'. The 'Maintenance' folder is expanded, showing 'MENUSEC - CAMS Menu Security'. The main window has two tabs: 'Roles by User' and 'Users by Role'. The 'Roles by User' tab is active, showing a table of users with columns: Last Name, First Name, Middle Name, DB User Name, and Emp No. Below this is a 'Menu Roles' section with a list of roles and checkboxes for assignment. The 'CAMS ROOT ROLE' is selected, and its children (ADMIN, ANALYST, ASAP, CAMS MENU MAINT, DWADMIN, FINANCE) are listed below it. The 'Assigned' checkbox is checked for the 'CAMS ROOT ROLE'. At the bottom, there is a status bar with 'USER'S LAST NAME (NON-ENTERABLE)' and 'Record 1/7'.</p>	

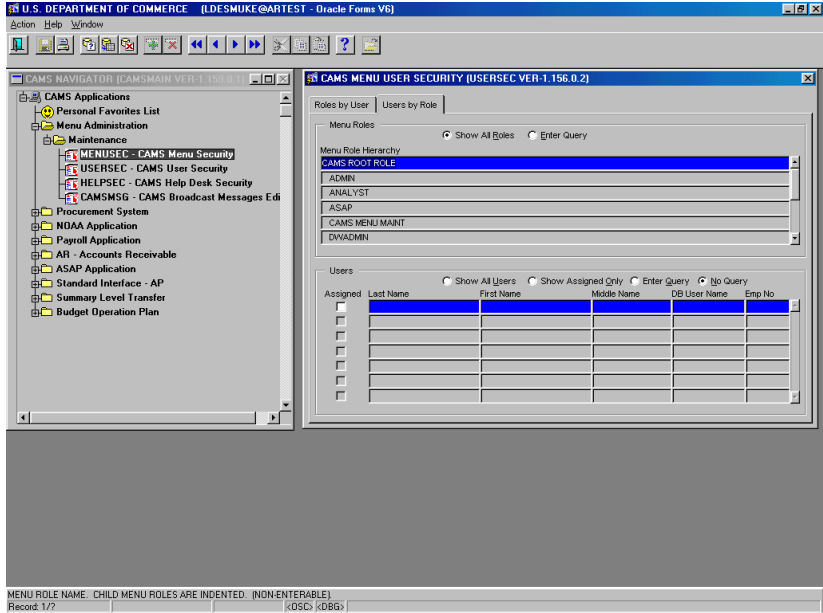
Action	Explanation/Result
The save icon from the toolbar is inactive. All changes are automatically saved.	Any changes to role assignments for the menu items are automatically saved as soon as a change is made. The save icon is inactive on this tab. This data is stored in the CAMS_ROLE_MENUS table.
Select the close window button in the upper right corner of the screen to close the window. 	The window will be closed.

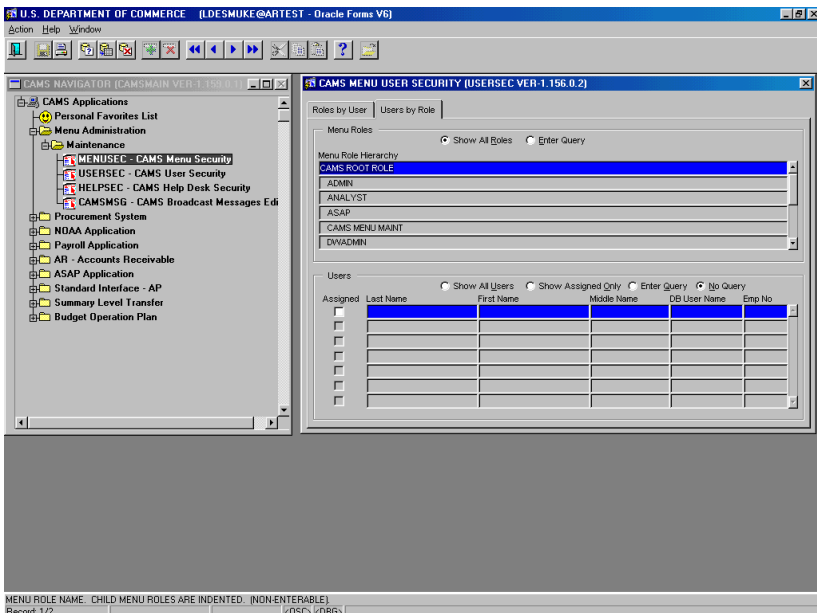
6.2.2.2 Users by Role

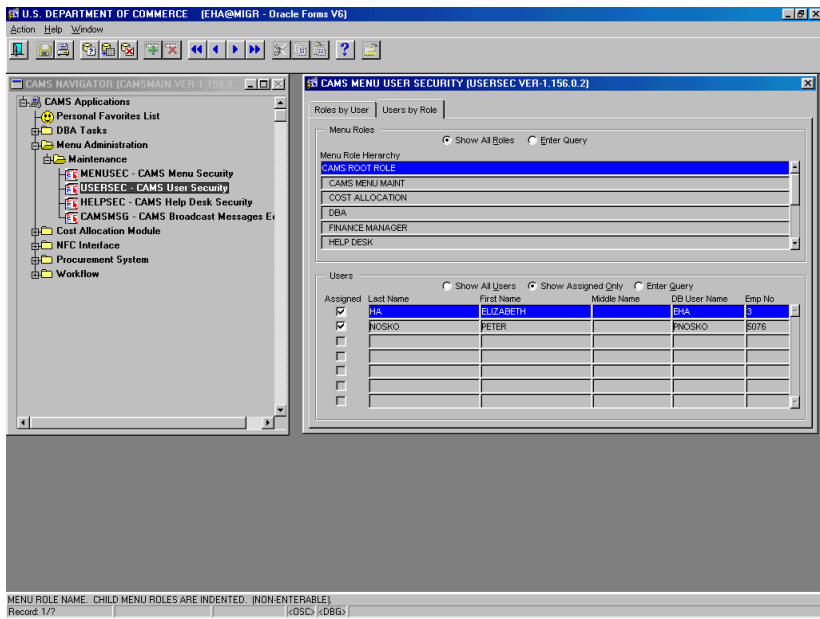


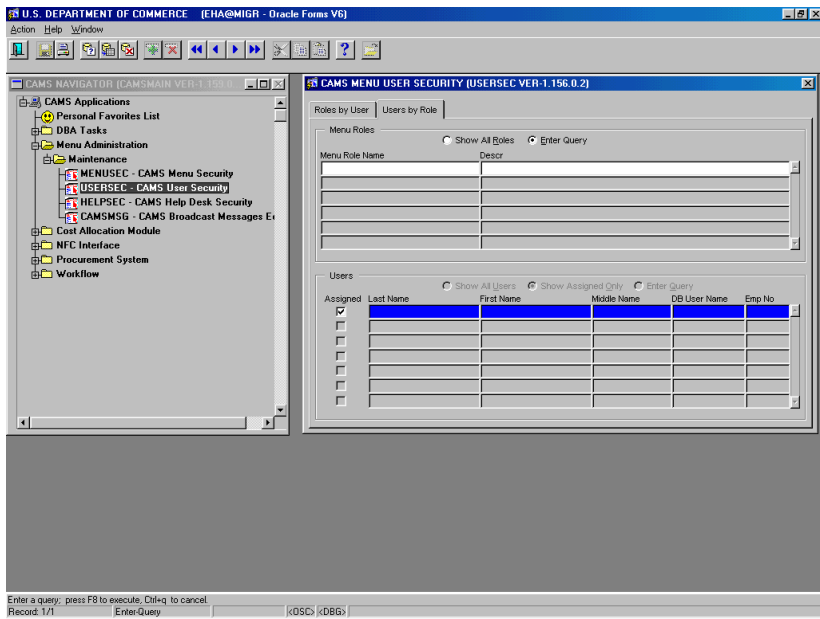
The Users by Role tab allows you to select a Menu Role and view whether it is assigned to a user or not. This tab allows authorized users to modify those assignments.

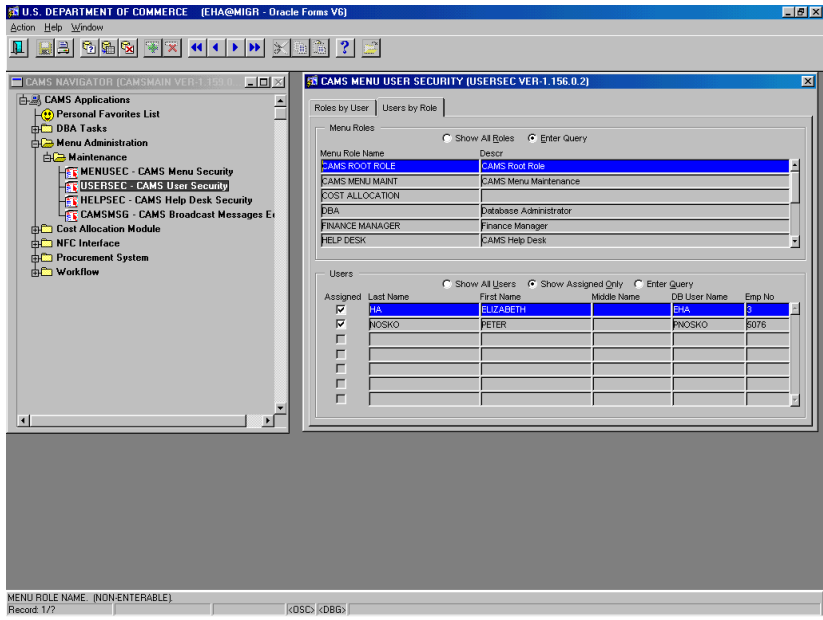
Roles may be assigned to users through either the Roles by User tab or the Users by Role tab. The following table illustrates the steps required to assign a role to a user via the Users by Role tab.


Action	Explanation/Result																																			
To assign a role to a user:	 <p>The screenshot displays the "CAMs MENU USER SECURITY (USERSEC VER-1.156.0.2)" application window. The "Users by Role" tab is selected. The "Users" section contains a table with the following data:</p> <table><thead><tr><th>Last Name</th><th>First Name</th><th>Middle Name</th><th>DB User Name</th><th>Emp No</th></tr></thead><tbody><tr><td>BICKFORD</td><td>NATHAN</td><td>A</td><td>LOADADM</td><td>0000</td></tr><tr><td>BOISVERT</td><td>RONALD</td><td>F</td><td>LOADBUD</td><td>0001</td></tr><tr><td>DESMUKE</td><td>LA JUNE</td><td></td><td>LEDESMUKE</td><td>0002</td></tr><tr><td>HA</td><td>ELIZABETH</td><td></td><td>BHA</td><td>0</td></tr><tr><td>NOSKO</td><td>PETER</td><td></td><td>PNOSKO</td><td>0076</td></tr><tr><td>PHINNEY</td><td>CURTIS</td><td>S</td><td>SLEE</td><td>0043</td></tr></tbody></table> <p>The "Menu Roles" section shows a list of roles with checkboxes for assignment. The "CAMS ROOT ROLE" is selected. The "Menu Role Hierarchy" section shows a tree view with "CAMS MENU MAINT" selected.</p>	Last Name	First Name	Middle Name	DB User Name	Emp No	BICKFORD	NATHAN	A	LOADADM	0000	BOISVERT	RONALD	F	LOADBUD	0001	DESMUKE	LA JUNE		LEDESMUKE	0002	HA	ELIZABETH		BHA	0	NOSKO	PETER		PNOSKO	0076	PHINNEY	CURTIS	S	SLEE	0043
Last Name	First Name	Middle Name	DB User Name	Emp No																																
BICKFORD	NATHAN	A	LOADADM	0000																																
BOISVERT	RONALD	F	LOADBUD	0001																																
DESMUKE	LA JUNE		LEDESMUKE	0002																																
HA	ELIZABETH		BHA	0																																
NOSKO	PETER		PNOSKO	0076																																
PHINNEY	CURTIS	S	SLEE	0043																																

Action	Explanation/Result
<p>To assign a role to a user:</p> <p>Click on the Users by Role tab of USERSEC.</p>	<p>The top portion of the window (Menu Roles) reflects the roles that have been created (refer to Section 6.2.1.1 for instructions on how to create and maintain roles). In this portion of the window, child elements are indented beneath their parent items.</p> <p>Show All Roles Will show all available menu roles.</p> <p>Enter Query Allows a user to search for a specific menu role.</p> <p>The bottom portion of the window (Users) reflects all active (ACTIVE_STATUS = "Y"), database users (DB_USER_NAME is not null) in the CAMS_USER_ROLE table.</p> 

Action	Explanation/Result								
Highlight the desired menu role in the top portion of the screen	 <p>When a Menu Role is highlighted in the top portion of the window, all of the users will be displayed in the bottom, Users, portion of the window. A check mark in the Assigned box indicates that the corresponding user has been assigned the selected role. It is not checked if the selected role is not assigned.</p> <p>There are four radio buttons in the Users portion of the window:</p> <table> <tr> <td>Show All Users</td><td>Will show all of the users whether they are assigned to the selected Menu Role or not.</td></tr> <tr> <td>Show Assigned Only</td><td>Will only show those users assigned to the selected Menu Role.</td></tr> <tr> <td>Enter Query</td><td>Sets the bottom portion of the window in query mode to query for a specific user.</td></tr> <tr> <td>No Query</td><td>No items will be shown (default).</td></tr> </table>	Show All Users	Will show all of the users whether they are assigned to the selected Menu Role or not.	Show Assigned Only	Will only show those users assigned to the selected Menu Role.	Enter Query	Sets the bottom portion of the window in query mode to query for a specific user.	No Query	No items will be shown (default).
Show All Users	Will show all of the users whether they are assigned to the selected Menu Role or not.								
Show Assigned Only	Will only show those users assigned to the selected Menu Role.								
Enter Query	Sets the bottom portion of the window in query mode to query for a specific user.								
No Query	No items will be shown (default).								

Action	Explanation/Result
<p>Click on the Menu Role against which users should be assigned.</p>	<p>When a Menu Role is selected, the Assigned check box next to the user will be checked if the user has the selected role assigned to him or unchecked if it is not.</p> <div></div>
<p>Because the user list is so long, you may perform a query on Users by first selecting the Enter Query radio button or the Enter Query icon from the toolbar:</p> <div></div> <p>Enter the user information on which to be queried. Wild cards (%) may be used.</p> <p>Select the Execute Query icon from the toolbar.</p> <div></div>	<p>The bottom portion of the window will be cleared and will allow entry in the fields for query purposes.</p> <div></div>

Action	Explanation/Result
<p>Check the Assigned checkbox to assign the selected role to a user.</p> <p>- or -</p> <p>Uncheck the Assigned checkbox to unassign the selected role from a user.</p>	<p>Note that roles may be set up as standard roles or parent roles. Roles assigned to a parent role are slightly indented under the parent role.</p> <p>If a parent role is selected and assigned to a user, all roles assigned to that parent are assigned to that user by default. For example, selecting the CFS Root Role will assign all child roles (i.e., CAMS MENU MAINT, COST ALLOCATION, DBA, etc.) to that user as well.</p> <p>If the parent role is unassigned to a user, the child roles remain assigned to that user and must be unassigned one by one.</p> <p>If any child roles under a parent are unassigned from a user, the parent role will be automatically unassigned as well. This is because role privileges are based on an inverted tree structure.</p> <p>Example – menu role MANAGER has three child roles, EMP1, EMP2, and EMP3. With MANAGER being the parent role, it must have all the attributes of the child roles beneath it. Consequently, any roles revoked from the parent role (MANAGER) will also be revoked from the child roles. Also, because a parent role must have all of the privileges of its child role, any new privileges granted to a child will cascade ‘uphill’ to the parent.</p> 
<p>The save icon from the toolbar is inactive. All changes are automatically saved.</p>	<p>Any changes to role assignments for the menu items are automatically saved as soon as a change is made. The save icon is inactive on this tab.</p> <p>This data is stored in the CAMS_ROLE_MENU table.</p>

Action	Explanation/Result
Select the close window button in the upper right corner of the screen to close the window. 	The window will be closed.

NOTE: When changes are made to the database on the USERSEC form the application will not automatically make those changes to the menu structure upon exiting the form. The user (System Administrator) will be prompted to refresh the navigator menu.

NOTE: You must have 'Root' role to run the USERSEC form.

6.2.3 HELPSEC

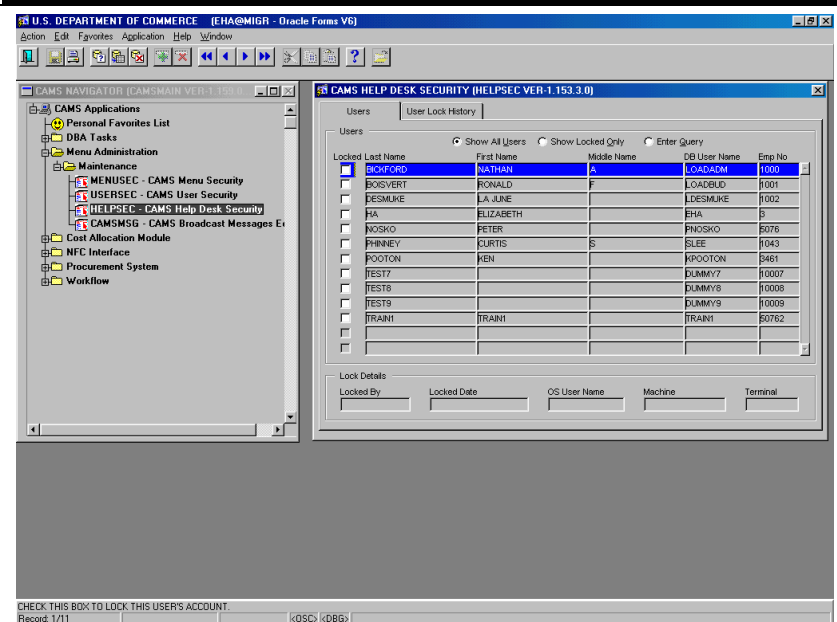
The CAMS Help Desk Security Screen is used to manage the locking and unlocking of users to the navigator menu. This screen allows a user to lock and unlock users. This screen also displays the past history of all user lock actions.



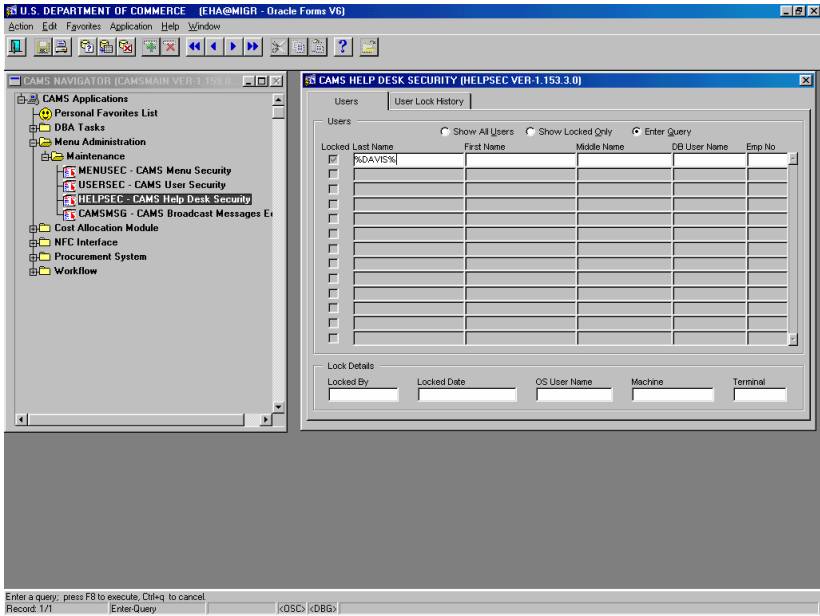
The CAMS Help Desk Security menu option launches the CAMS Help Desk Security screen consisting of the following two tabs:

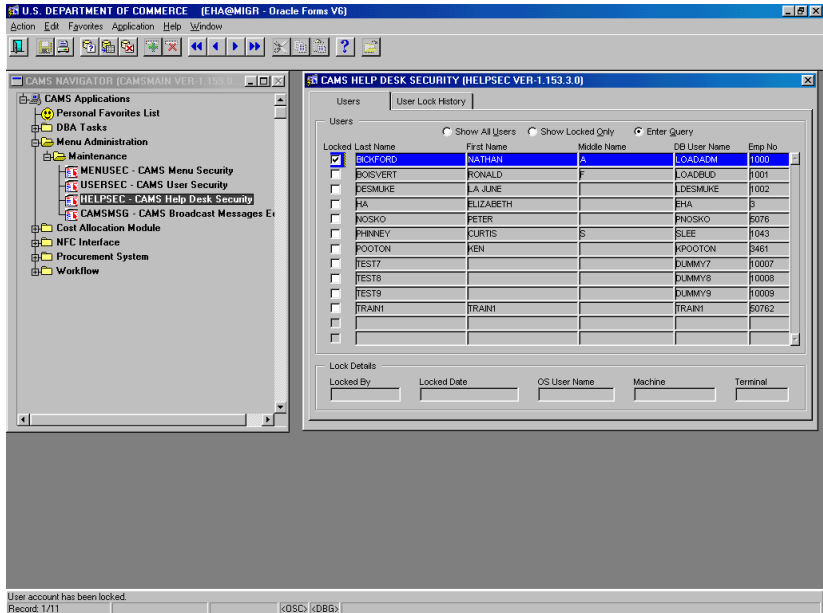

6.2.3.1 Users Tab

This tab allows you to view all users, only those that are already locked, or to query for a specific user. Once selected, you may lock or unlock the user from accessing CAMS via the Navigator.

Regardless of any roles assigned to a user specifying access rights, a user may also be totally locked from accessing CAMS through the Navigator menu. Note that users are automatically locked from using the system after several unsuccessful logon attempts based on a Security Policy parameter (refer to Section 6.2.1.4). The following table illustrates the steps required to lock or unlock a user from the system.

Action	Explanation/Result
To lock a user from accessing CAMS on the HELPSEC Screen:	<div></div> <p>The top portion of the window (Users) reflects all active (ACTIVE_STATUS = "Y"), database users (DB_USER_NAME is not null) in the EMPLOYEE_CONTROL table. The Locked check box next to the user name indicates whether the corresponding user is locked (checked) from accessing the system or not (unchecked).</p> <p>When a user is highlighted in the top portion of the window, more detailed information concerning the lock is displayed in</p>

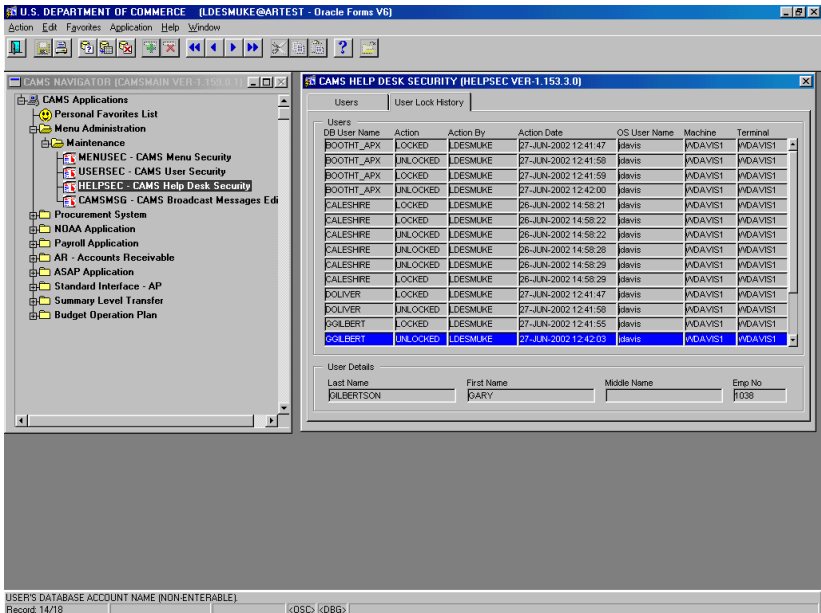
Action	Explanation/Result
	<p>the bottom, Lock Details, portion of the window.</p> <p>There are three radio buttons in the Users portion of the window:</p> <p>Show All Users Will show all of the users whether they are locked or not.</p> <p>Show Locked Only Will only show those users who are locked from using the system.</p> <p>Enter Query Sets the top portion of the window in query mode to query for a specific user.</p>
<p>Because the user list is so long, you may perform a query on Users by first selecting the Enter Query radio button or the Enter Query icon from the toolbar:</p>  <p>Enter the user information on which to be queried. Wild cards (%) may be used.</p> <p>Select the Execute Query icon from the toolbar.</p> 	<p>The top portion of the window will be cleared and will allow entry in the fields for query purposes.</p> 


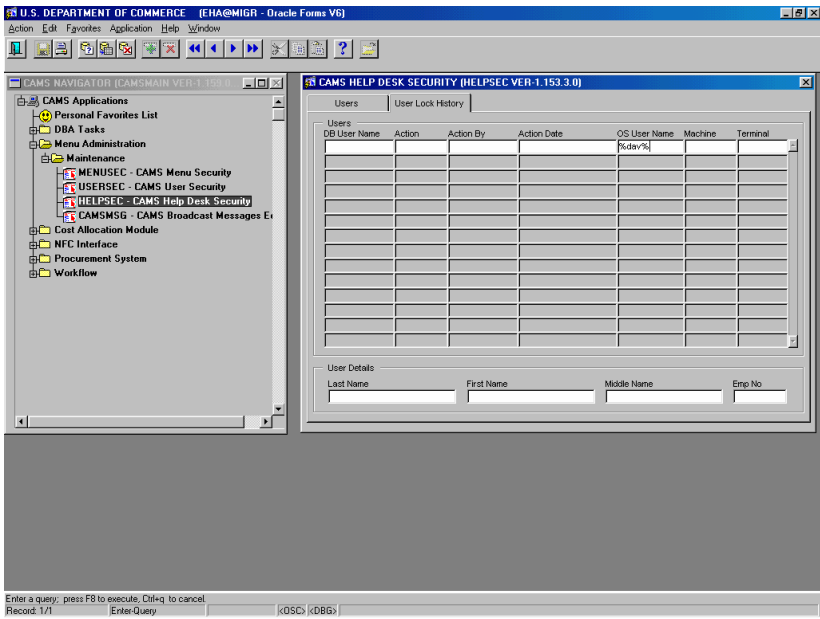


Action	Explanation/Result
<p>Check the Locked checkbox to lock a user from using the system.</p> <p>- Or -</p> <p>Uncheck the Locked checkbox to grant a user access to the system once again.</p>	
<p>The save icon from the toolbar is inactive. All changes are automatically saved.</p>	<p>Any changes to role assignments for the menu items are automatically saved as soon as a change is made. The save icon is inactive on this tab.</p> <p>This data is stored in the CAMS_LOCK table.</p>
<p>Select the close window button in the upper right corner of the screen to close the window.</p> 	<p>The window will be closed.</p>

6.2.3.2 User Lock History tab

Allows you to view information concerning users who have been locked out of the system due to unsuccessful log on attempts.

The history of a user's account being locked may be viewed through the CAMS Help Desk Security (HELPSEC) User Lock History tab as described in the table below.

Action	Explanation/Result
<p>To view the history of a user's account being locked and unlocked:</p> <p>Click on the User Lock History tab.</p>	<p>The top portion of the window shows the locking and unlocking actions that took place for all users. This information is sorted by DB User Name and Action Date.</p>  <p>When a user is highlighted in the top portion of the window, more detailed information concerning the user is displayed in the bottom, User Details, portion of the window.</p> <p>This is a read-only window and does not allow updates to be made to the data presented.</p>

Action	Explanation/Result
<p>Because the user list may become long, you may perform a query on Users by first selecting the Enter Query icon from the toolbar:</p> 	<p>The top portion of the window will be cleared and will allow entry in the fields for query purposes.</p> 
<p>Select the Execute Query icon from the toolbar.</p> 	<p>The window will be closed.</p>
<p>Select the close window button in the upper right corner of the screen to close the window.</p> 	

6.2.4 CAMSMMSG

The CAMS Message Editor Screen allows a user to modify the broadcast messages that appear when users log-on to the system. This form manipulates a flat file that is read upon system entry. This form consists of the two windows, Message List and Message editor. Both will be discussed in this section.

To facilitate the new message functionality, two new command line parameters were created, BROADCAST_MESSAGE_FILE and BROADCAST_FORCE_VIEW.

6.2.4.1 BROADCAST_MESSAGE_FILE

This parameter is used to specify the location of the broadcast message flat file. Any file location can be specified through this parameter by adding "BROADCAST_MESSAGE_FILE=<FILE LOCATION>" in the command line. If no path is entered, the system will look in the path where the code resides for the file. If this parameter is not entered at all, no messages will appear. In addition, multiple message files may be specified by entering the parameter in the command line multiple times.

6.2.4.2 BROADCAST_FORCE_VIEW

This parameter is used to specify if users are required to view all messages that appear upon login. If set to "Y" users must view all messages before the "Enter CAMS" button becomes active. If this parameter is set to "N" users may enter CAMS without viewing all messages. If the parameter is not entered at all, then the "N" option will default.

NOTE: The CAMSMMSG screen will function even when a user is NOT connected to Oracle. This way, system administrators will be able to inform users about system events even when the database is down.

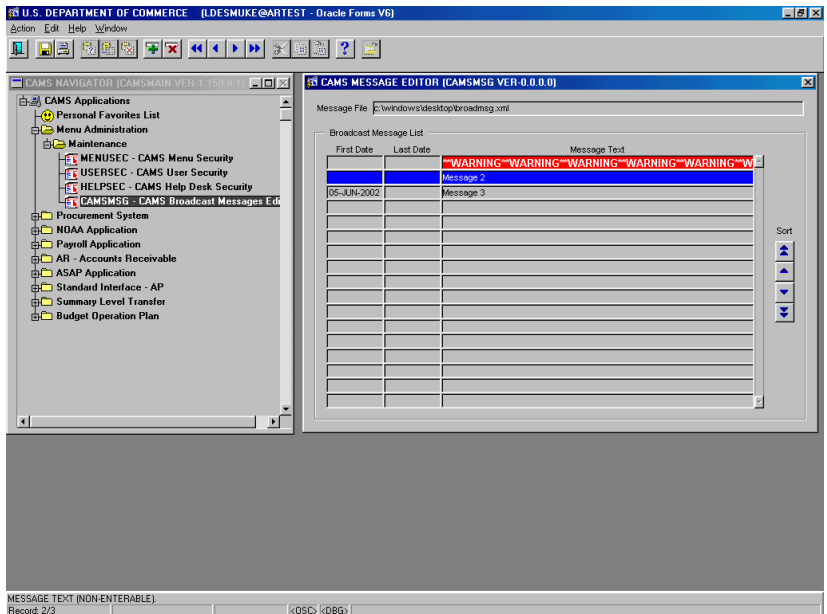

6.2.4.3 Running CAMSMMSG While not Connected to Oracle

CAMSMMSG was designed so that it can be run in times in which the connecting database is not functioning. To run CAMSMMSG independently of the database the menu administrator will need to create a shortcut that can be used to call CAMSMMSG. This shortcut should be similar to the one for CAMSMMAIN, but with a target of CAMSMMSG. The broadcast_message_file parameter specified the message file also needs to be listed in the target field.

6.2.4.4 Message List Window

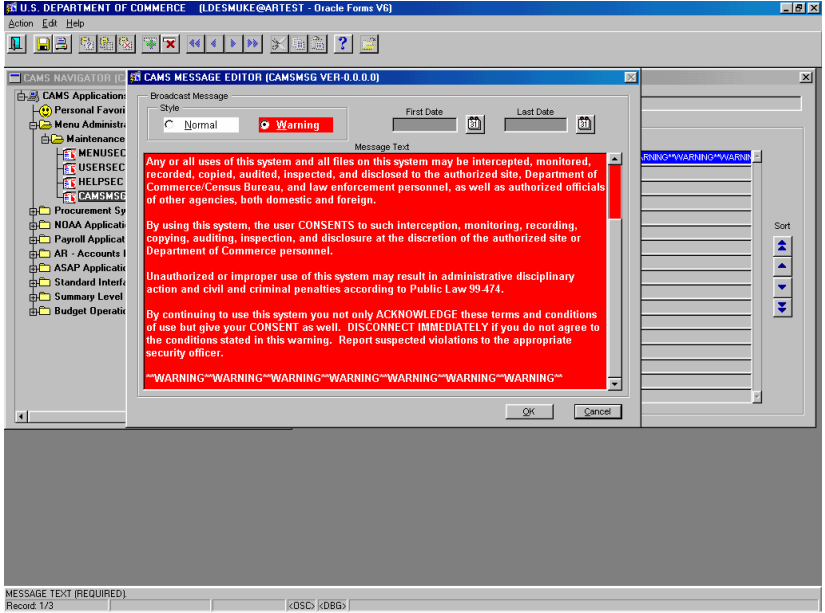
This window displays a list of all the messages that appear on the flat file. A user may sort the messages so that they will appear in a specified order.

Because multiple message files may be used, a form parameter has been created so that the users may specify which file they want to modify with CAMSMMSG. To specify which file to use, a user must set the file name and location in the BROADCAST_MESSAGE_FILE parameter line in the 'Edit Menu Item Screen' for CAMSMMSG.

Action	Explanation/Result
<p>To sort the CAMS messages:</p> <p>Click on the desired Sort buttons to move a message up or down in the list.</p>	<p>This part of the screen displays all available messages that exist in the flat file. Users may add or delete messages by using the buttons on the toolbar.</p>  <p>The screenshot shows the 'CAMS MESSAGE EDITOR' window. On the left is a 'CAMS NAVIGATOR' tree with various application categories. The main area displays a 'Broadcast Message List' table with columns for 'First Date', 'Last Date', and 'Message Text'. The first row shows a date of '05-JUN-2002' and a message text starting with 'WARNING'. To the right of the table are 'Sort' buttons with up and down arrows. At the bottom, there is a status bar indicating 'MESSAGE TEXT (NON-ENTERABLE)' and 'Record: 2/3'.</p> <p>Messages may be sorted only if the user has write access to the broadcast message flat file.</p>
<p>Select the close window button in the upper right corner of the screen to close the window.</p> 	<p>The window will be closed.</p>

6.2.4.5 Message Editor Window

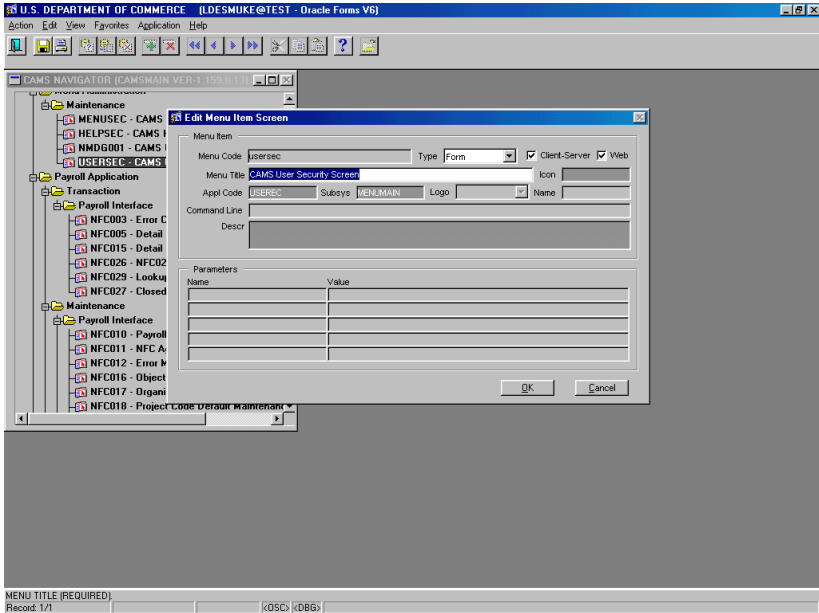
This tab is used to enter new messages or modify existing ones. A user may specify the dates that the message will be displayed. All changes will be reflected in the Message List tab.

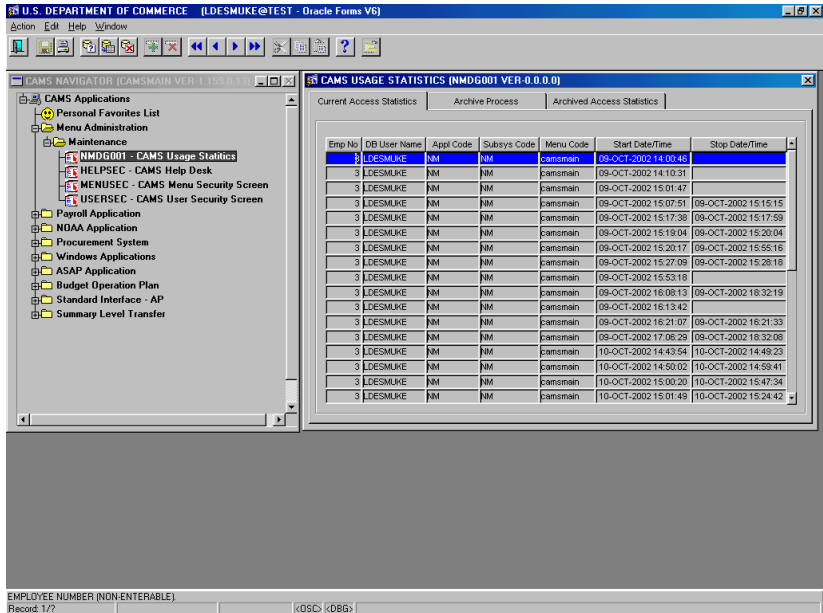
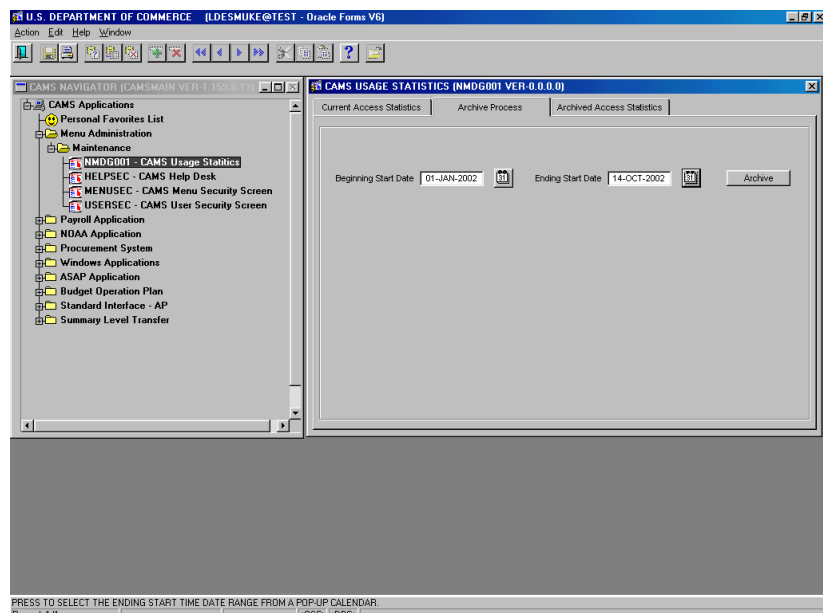
Action	Explanation/Result
To edit a message: Double click on the desired message or click the '+' button on the toolbar to add a new message.	<p>The Message Editor portion of CAMSMMSG allows a user to modify the text of a message, change the style, delete a message, and add begin and/or end dates for the message to be displayed.</p>  <p>Once all desired changes have been made click the 'OK' button to commit the changes.</p>

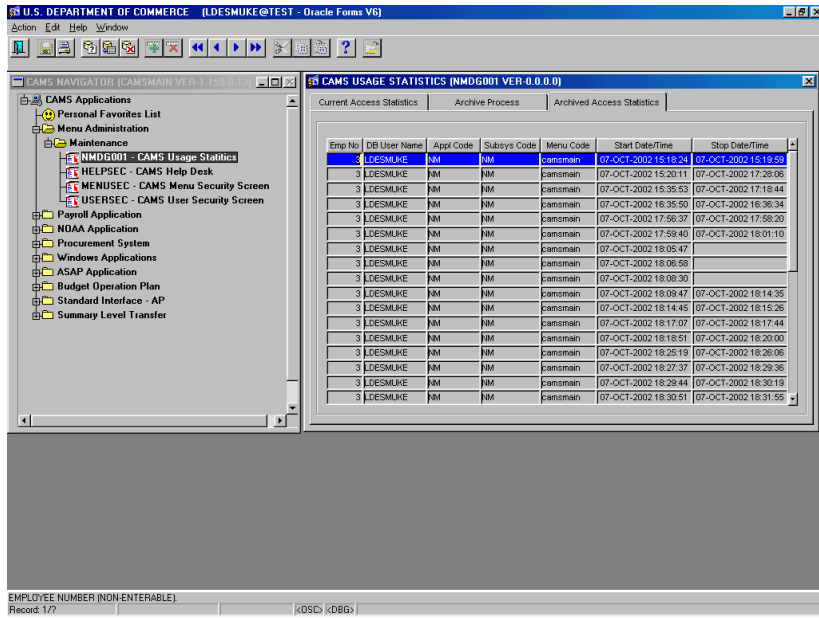
6.2.5 NMDG001 – CAMS Usage Statistics Screen

The CAMS Usage Statistics Screen allows a user to view statistics pertaining to the overall usage of the Navigator Menu and CAMS forms. Certain statistics are saved by the Navigator Menu in tables that are viewed in this screen. If an administrator wishes to capture for a specific CAMS screen, they need to enter the Appl Code and Subsys fields on the Edit Menu Item Screen for that specific menu item.

This screen also provides the capability for users to periodically archive the statistics saved in the tables to improve performance.

Action	Explanation/Result
<p>To specify the forms that statistics will be captured:</p> <p>Access the Edit Menu Item screen for the desired form. Enter information in the Appl Code and Subsys fields. (This is the information that will be listed in NMDG001)</p> <p>NOTE: Statistics will always be captured for CAMSMAIN.</p>	

Action	Explanation/Result
<p>To view current usage statistics:</p> <p>Access NMDG001 and use the scroll bar to view the contents.</p> <p>NOTE: If the 'Method of Running Forms' is set to multiple forms, end dates will not be captured. The same is true for reports and windows applications.</p>	<p>The CAMS Usage Statistics Screen allows a user to view statistics pertaining to usage of the CAMS Navigator Menu and CAMS forms.</p>  <p>The screenshot shows the 'CAMS USAGE STATISTICS (NMDG001 VER-0.0.0.0)' window. It has three tabs: 'Current Access Statistics', 'Archive Process', and 'Archived Access Statistics'. The 'Current Access Statistics' tab is active, displaying a table with the following columns: Emp No, DB User Name, Appl Code, Subsys Code, Menu Code, Start Date/Time, and Stop Date/Time. The table contains 15 rows of data for user 'LDESJMUKE' using 'camsmain' menu code, with start and stop times ranging from 09-OCT-2002 14:00:43 to 10-OCT-2002 15:24:42.</p>
<p>To archive statistics:</p> <p>Access the 'Archive Process' tab. Specify the date range of the records to be archived. Click on the 'Archive' button.</p> <p>Acknowledge all confirmation messages.</p>	<p>The 'Archive Process' tab is used to archive records on the 'Current Access Statistics' tab. These records are then listed on the 'Archived Access Statistics' tab.</p>  <p>The screenshot shows the same 'CAMS USAGE STATISTICS' window, but the 'Archive Process' tab is now active. It displays a form with 'Beginning Start Date' set to '01-JAN-2002' and 'Ending Start Date' set to '14-OCT-2002'. There is an 'Archive' button to the right of the date fields. Below the form, a message reads: 'PRESS TO SELECT THE ENDING START TIME DATE RANGE FROM A POP-UP CALENDAR.'</p>

Action	Explanation/Result																																																																																																																														
	<p>The 'Archived Access Statistics' screen shows all statistics that have been archived using the 'Archive Process' tab. Data is listed in the same manner as in the 'Current Access Statistics' tab.</p>  <table><tr><th>Emp No</th><th>DB User Name</th><th>Appl Code</th><th>Subsys Code</th><th>Menu Code</th><th>Start Date/Time</th><th>Stop Date/Time</th></tr><tr><td>3</td><td>LDESIMUKE</td><td>NM</td><td>NM</td><td>camsmain</td><td>07-OCT-2002 15:18:24</td><td>07-OCT-2002 15:18:33</td></tr><tr><td>3</td><td>LDESIMUKE</td><td>NM</td><td>NM</td><td>camsmain</td><td>07-OCT-2002 15:20:11</td><td>07-OCT-2002 17:28:06</td></tr><tr><td>3</td><td>LDESIMUKE</td><td>NM</td><td>NM</td><td>camsmain</td><td>07-OCT-2002 15:35:55</td><td>07-OCT-2002 17:18:44</td></tr><tr><td>3</td><td>LDESIMUKE</td><td>NM</td><td>NM</td><td>camsmain</td><td>07-OCT-2002 16:35:50</td><td>07-OCT-2002 16:36:34</td></tr><tr><td>3</td><td>LDESIMUKE</td><td>NM</td><td>NM</td><td>camsmain</td><td>07-OCT-2002 17:56:37</td><td>07-OCT-2002 17:56:20</td></tr><tr><td>3</td><td>LDESIMUKE</td><td>NM</td><td>NM</td><td>camsmain</td><td>07-OCT-2002 17:59:40</td><td>07-OCT-2002 18:01:10</td></tr><tr><td>3</td><td>LDESIMUKE</td><td>NM</td><td>NM</td><td>camsmain</td><td>07-OCT-2002 18:05:47</td><td></td></tr><tr><td>3</td><td>LDESIMUKE</td><td>NM</td><td>NM</td><td>camsmain</td><td>07-OCT-2002 18:06:58</td><td></td></tr><tr><td>3</td><td>LDESIMUKE</td><td>NM</td><td>NM</td><td>camsmain</td><td>07-OCT-2002 18:08:30</td><td></td></tr><tr><td>3</td><td>LDESIMUKE</td><td>NM</td><td>NM</td><td>camsmain</td><td>07-OCT-2002 18:09:47</td><td>07-OCT-2002 18:14:35</td></tr><tr><td>3</td><td>LDESIMUKE</td><td>NM</td><td>NM</td><td>camsmain</td><td>07-OCT-2002 18:14:45</td><td>07-OCT-2002 18:15:25</td></tr><tr><td>3</td><td>LDESIMUKE</td><td>NM</td><td>NM</td><td>camsmain</td><td>07-OCT-2002 18:17:07</td><td>07-OCT-2002 18:17:44</td></tr><tr><td>3</td><td>LDESIMUKE</td><td>NM</td><td>NM</td><td>camsmain</td><td>07-OCT-2002 18:18:51</td><td>07-OCT-2002 18:20:00</td></tr><tr><td>3</td><td>LDESIMUKE</td><td>NM</td><td>NM</td><td>camsmain</td><td>07-OCT-2002 18:25:19</td><td>07-OCT-2002 18:26:06</td></tr><tr><td>3</td><td>LDESIMUKE</td><td>NM</td><td>NM</td><td>camsmain</td><td>07-OCT-2002 18:27:37</td><td>07-OCT-2002 18:29:36</td></tr><tr><td>3</td><td>LDESIMUKE</td><td>NM</td><td>NM</td><td>camsmain</td><td>07-OCT-2002 18:29:44</td><td>07-OCT-2002 18:30:19</td></tr><tr><td>3</td><td>LDESIMUKE</td><td>NM</td><td>NM</td><td>camsmain</td><td>07-OCT-2002 18:30:51</td><td>07-OCT-2002 18:31:35</td></tr></table> <p>EMPLOYEE NUMBER (NON-ENTERABLE) Record 1/7 <DBSG >DBSG</p>	Emp No	DB User Name	Appl Code	Subsys Code	Menu Code	Start Date/Time	Stop Date/Time	3	LDESIMUKE	NM	NM	camsmain	07-OCT-2002 15:18:24	07-OCT-2002 15:18:33	3	LDESIMUKE	NM	NM	camsmain	07-OCT-2002 15:20:11	07-OCT-2002 17:28:06	3	LDESIMUKE	NM	NM	camsmain	07-OCT-2002 15:35:55	07-OCT-2002 17:18:44	3	LDESIMUKE	NM	NM	camsmain	07-OCT-2002 16:35:50	07-OCT-2002 16:36:34	3	LDESIMUKE	NM	NM	camsmain	07-OCT-2002 17:56:37	07-OCT-2002 17:56:20	3	LDESIMUKE	NM	NM	camsmain	07-OCT-2002 17:59:40	07-OCT-2002 18:01:10	3	LDESIMUKE	NM	NM	camsmain	07-OCT-2002 18:05:47		3	LDESIMUKE	NM	NM	camsmain	07-OCT-2002 18:06:58		3	LDESIMUKE	NM	NM	camsmain	07-OCT-2002 18:08:30		3	LDESIMUKE	NM	NM	camsmain	07-OCT-2002 18:09:47	07-OCT-2002 18:14:35	3	LDESIMUKE	NM	NM	camsmain	07-OCT-2002 18:14:45	07-OCT-2002 18:15:25	3	LDESIMUKE	NM	NM	camsmain	07-OCT-2002 18:17:07	07-OCT-2002 18:17:44	3	LDESIMUKE	NM	NM	camsmain	07-OCT-2002 18:18:51	07-OCT-2002 18:20:00	3	LDESIMUKE	NM	NM	camsmain	07-OCT-2002 18:25:19	07-OCT-2002 18:26:06	3	LDESIMUKE	NM	NM	camsmain	07-OCT-2002 18:27:37	07-OCT-2002 18:29:36	3	LDESIMUKE	NM	NM	camsmain	07-OCT-2002 18:29:44	07-OCT-2002 18:30:19	3	LDESIMUKE	NM	NM	camsmain	07-OCT-2002 18:30:51	07-OCT-2002 18:31:35
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3	LDESIMUKE	NM	NM	camsmain	07-OCT-2002 18:30:51	07-OCT-2002 18:31:35																																																																																																																									

6.3 CFS Data Warehouse

During the installing of DW v1.163.0.0, script *dw_nav_post.sql* is provided to establish the Menu Roles and Menu Items in the CFS Data Warehouse instance, as illustrated in the following subsections of MENUSEC and USERSEC to explain how they are defined. It is recommended to follow the menu hierarchy in the CFS Data Warehouse Navigator Menu system, as shown below and on the left hand side of the screen:

CAMS Applications

Menu Administration

Maintenance

MENUSEC - CAMS Menu Security

USERSEC - CAMS User Security

HELPSEC - CAMS Help Desk Security

CAMSMMSG - CAMS Broadcast Messages Editor

NMDG001 - CAMS Access Statistics

DW - Data Warehouse Application

AP Productivity

DWAP01 - AP Productivity Reports

Budget and Expenditures

DWFM001 - Budget and Expenditures Query

User Management

DWDG001 - Employee Information

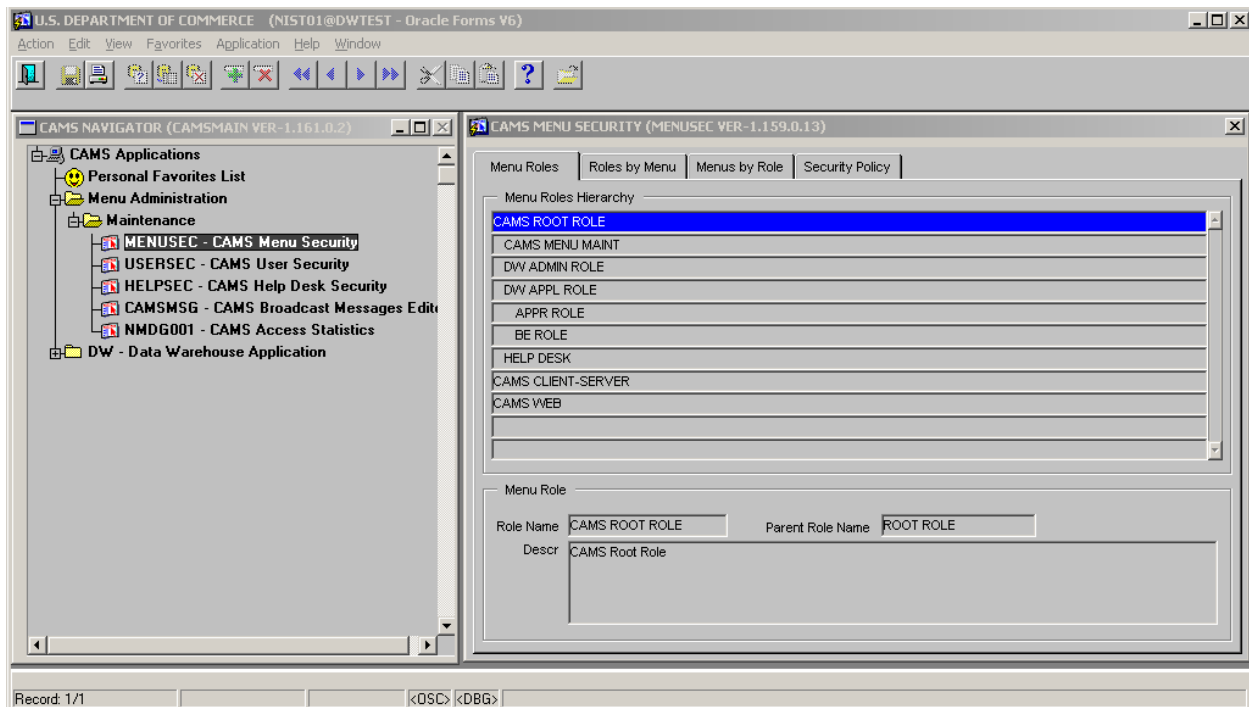
6.3.1 MENUSEC

Four tabs are available when selecting MENUSEC from the menu hierarchy on the left.

6.3.1.1 Menu Roles tab

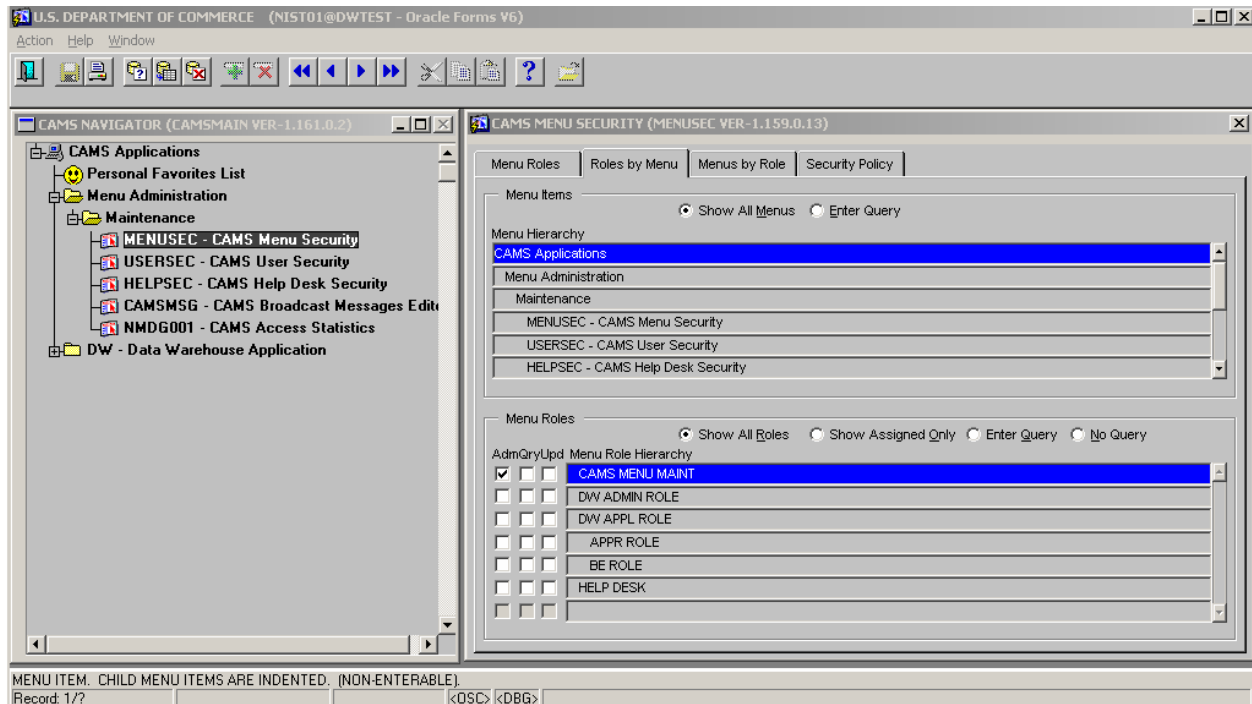
The Menu Roles tab displays the roles in the CFS Data Warehouse, under the parent root role of CAMS ROOT ROLE, named the same as in the CFS system:

- DW APPL ROLE – the general CFS Data Warehouse access role and provides privileges to access all CFS Data Warehouse applications. This is the parent role of the following roles:
 - APPR ROLE – allows you to access AP Productivity Reports application
 - BE ROLE – allows you to access Budget and Expenditures Query application
- DW ADMIN ROLE – the DW administration role to manage users/employees, mainly employee_control table now (Employee Information application)



6.3.1.2 Roles by Menu tab

As shown in the following screen, the top portion of the Roles by Menu tab displays the hierarchy of menus and submenus defined in the CFS Data Warehouse instance. The bottom portion of the window (Menu Roles) displays the menu roles.



6.3.1.3 Menus by Role tab

The Menus by Role tab allows you to select a Menu Role from the hierarchy and display the menu items and privileges associated, such as Adm, Qry, or Upd. Authorized users may modify the associations by checking and un-checking the boxes.

CAMS MENU SECURITY (MENUSEC VER-1.159.0.13)

Menu Roles | Roles by Menu | **Menus by Role** | Security Policy

Menu Roles

☒ Show All Roles ☐ Enter Query

Hierarchy

- CAMS MENU MAINT
- DW ADMIN ROLE
- DW APPL ROLE
- APPR ROLE
- BE ROLE
- HELP DESK

Menus Items

☒ Show All Menus ☐ Show Assigned Only ☐ Enter Query ☐ No Query

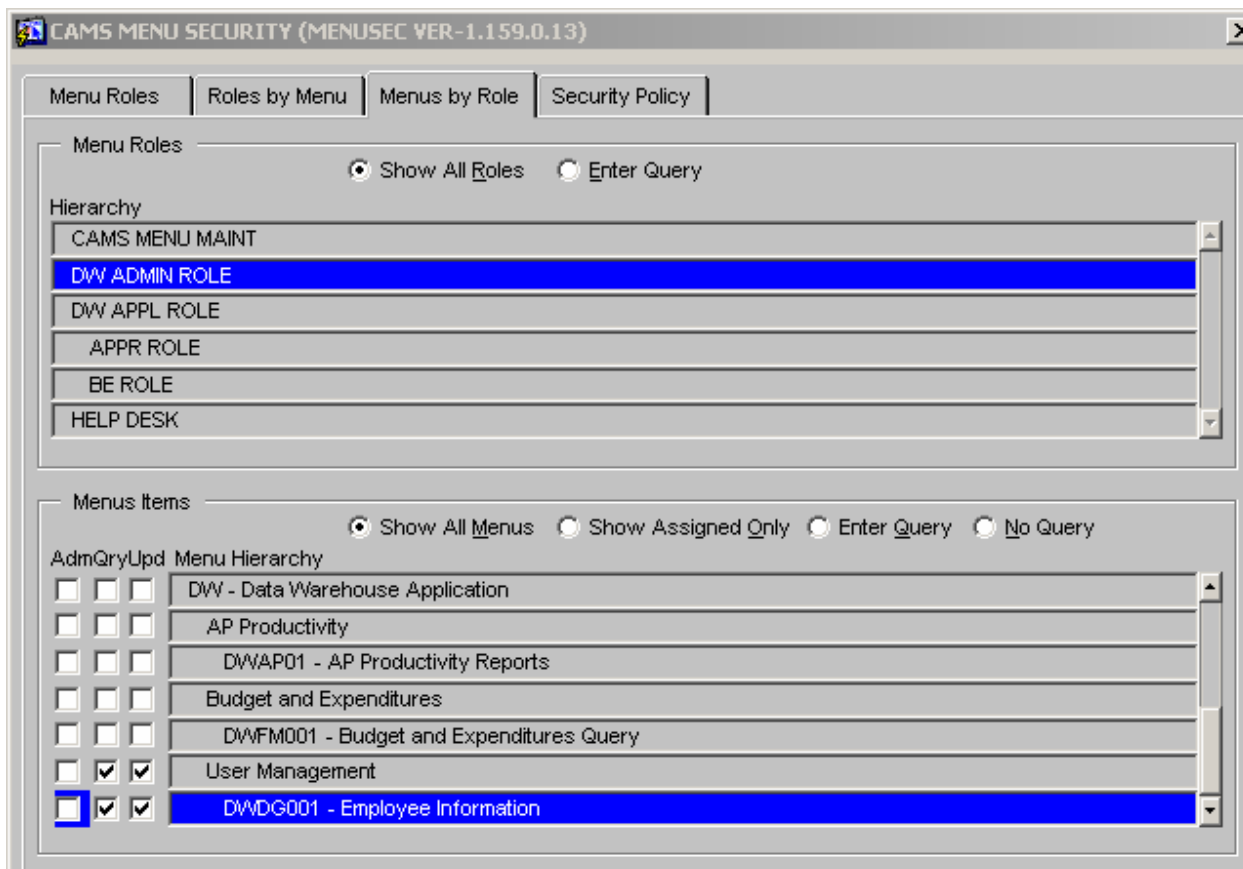
Adm Qry Upd Menu Hierarchy

Adm	Qry	Upd	Menu Hierarchy
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	CAMS Applications
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Menu Administration
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Maintenance
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	MENUSEC - CAMS Menu Security
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	USERSEC - CAMS User Security
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HELPSEC - CAMS Help Desk Security
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	CAMSMMSG - CAMS Broadcast Messages Editor

Adm	Qry	Upd	Menu Hierarchy
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NMDG001 - CAMS Access Statistics
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	DW - Data Warehouse Application
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	AP Productivity
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	DWVAP01 - AP Productivity Reports
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Budget and Expenditures
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	DWFM001 - Budget and Expenditures Query
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	User Management

Adm	Qry	Upd	Menu Hierarchy
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	DWDG001 - Employee Information

Selecting DW ADMIN ROLE to see the privilege associated – Query, update access to DWDG01 screen of the Employee Information application, as shown in the next screen:



Selecting either of the two children roles under the parent role DW APPL ROLE to see the privilege associated, as shown in the next two screens:

- APPR ROLE – Query access to DWAP01 screen of the AP Productivity application;
- BE ROLE – Query access to DWFM001 screen of the Budget and Expenditures Query application.

CAMS MENU SECURITY (MENUSEC VER-1.159.0.13)

Menu Roles | Roles by Menu | Menus by Role | Security Policy

Menu Roles

☒ Show All Roles ☐ Enter Query

Hierarchy

CAMS MENU MAINT
DW ADMIN ROLE
DW APPL ROLE
APPR ROLE
BE ROLE
HELP DESK

Menus Items

☒ Show All Menus ☐ Show Assigned Only ☐ Enter Query ☐ No Query

AdmGryUpd Menu Hierarchy

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	CAMSMMSG - CAMS Broadcast Messages Editor
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NMDG001 - CAMS Access Statistics
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	DW - Data Warehouse Application
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	AP Productivity
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	DWAP01 - AP Productivity Reports
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Budget and Expenditures
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	DWFM001 - Budget and Expenditures Query

CAMS MENU SECURITY (MENUSEC VER-1.159.0.13)

Menu Roles | Roles by Menu | Menus by Role | Security Policy

Menu Roles

☒ Show All Roles ☐ Enter Query

Hierarchy

CAMS MENU MAINT
DW ADMIN ROLE
DW APPL ROLE
APPR ROLE
BE ROLE
HELP DESK

Menus Items

☒ Show All Menus ☐ Show Assigned Only ☐ Enter Query ☐ No Query

AdmGryUpd Menu Hierarchy

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NMDG001 - CAMS Access Statistics
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	DW - Data Warehouse Application
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	AP Productivity
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	DWAP01 - AP Productivity Reports
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Budget and Expenditures
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	DWFM001 - Budget and Expenditures Query
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	User Management

6.3.1.4 Security Policy Tab

The Security Policy tab remains the same as in the CFS system.

6.3.1.5 Password Dictionary Tab

The Password Dictionary tab remains the same as in the CFS system.

6.3.2 USERSEC

Follow the same steps as in the CFS (described in section 6.2.2) to assign users to a role. The following figure shows the Roles by User tab that user NIST04 is assigned to Role DW APPL ROLE, including the two children roles of APPR ROLE to access AP Productivity Reports application, and BE ROLE to access the Budget and Expenditures application.

U.S. DEPARTMENT OF COMMERCE (NIST01@DWTEST - Oracle Forms V6)

CAMS NAVIGATOR (CAMSMAN VER-1.161.0.2)

CAMS MENU USER SECURITY (USERSEC VER-1.159.0.13)

Roles by User | Users by Role

Users

☐ Show All Users ☒ Enter Query

Last Name	First Name	Middle Name	DB User Name	Emp No
NIST	01		NIST01	2567
NIST	04		NIST04	2571
NIST	10		NIST10	2577
NIST	FRANK 09		NIST09	2578
NIST	LINDA		NIST05	2572
NISTCHRIS	06		NIST06	2573

Menu Roles

☒ Show All Roles ☐ Show Assigned Only ☐ Enter Query ☐ No Query

Assigned	Menu Role Hierarchy
<input type="checkbox"/>	CAMS ROOT ROLE
<input type="checkbox"/>	CAMS MENU MAINT
<input type="checkbox"/>	DW ADMIN ROLE
<input checked="" type="checkbox"/>	DW APPL ROLE
<input checked="" type="checkbox"/>	APPR ROLE
<input checked="" type="checkbox"/>	BE ROLE
<input type="checkbox"/>	HELP DESK

USER'S LAST NAME (NON-ENTERABLE).

Record: 2/9

<QSD> <DBG>

7. Dual Menu Capability

The CAMS Navigator Menu supports a dual menu capability. In addition to the Navigator menu window, there is also a menu bar on the main window that can be used to navigate to forms, folders, and reports.

If the 'Method of Running Forms' parameter on MENUSEC is set to allow only a single form to be run at a given time, the 'Favorites' and 'Application' menu bars will be disabled when any forms are open.

The following menu bars will appear on the menu bar (unless prohibited by MENUSEC):

- **Action** – Clear All, Save, Print, Exit.
- **Edit** – Cut, Copy, Paste, Edit.
- **View** – Refresh Menu, Expand, Collapse, Expand All, Collapse All, View Navigator (which allows the user to view or minimize/hide the navigator menu).
- **Favorites** – Lists the items from the Navigator Personal Favorites List.
- Any time an item is added or removed from the Navigator's Personal Favorites List, the items within this menu option will also change. Section 5.2.2 describes how to add and delete items from the Personal Favorites list.
- Note that Oracle has a limitation of 25 items that may appear under a menu item. Therefore, although the Navigator does not limit the number of favorites to be defined, only the first 25 will appear under the Favorites menu bar option. To appear on both the Navigator and the menu bar, the number of items in the Favorites list must be limited to 25.
- **Application** – Lists the items from the first level under the CAMS Applications menu option on the Navigator.
- Any time an item is added to the Navigator's menu structure, the new item will also appear within this menu option. Likewise, when an item is removed from the Navigator menu, it will also be removed from this menu option. The user may need to select the View | Refresh Menu option to see the changes reflected in the menu bar. Section 6.1 describes how to define, maintain, and delete menu items.
- Note that Oracle has a limitation of 25 items that may appear under a menu item. Therefore, although the Navigator does not limit the number of applications to be defined, only the first 25 will appear under the Application menu bar option. To appear on both the Navigator and the menu bar, the number of applications must be limited to 25.
- **Help** – Help, Keys, Display Error
- **Window** – Cascade, Tile, Arrange Icons, and list of open windows.

Figure 6 reflects the menu bar when the Navigator is initially displayed.

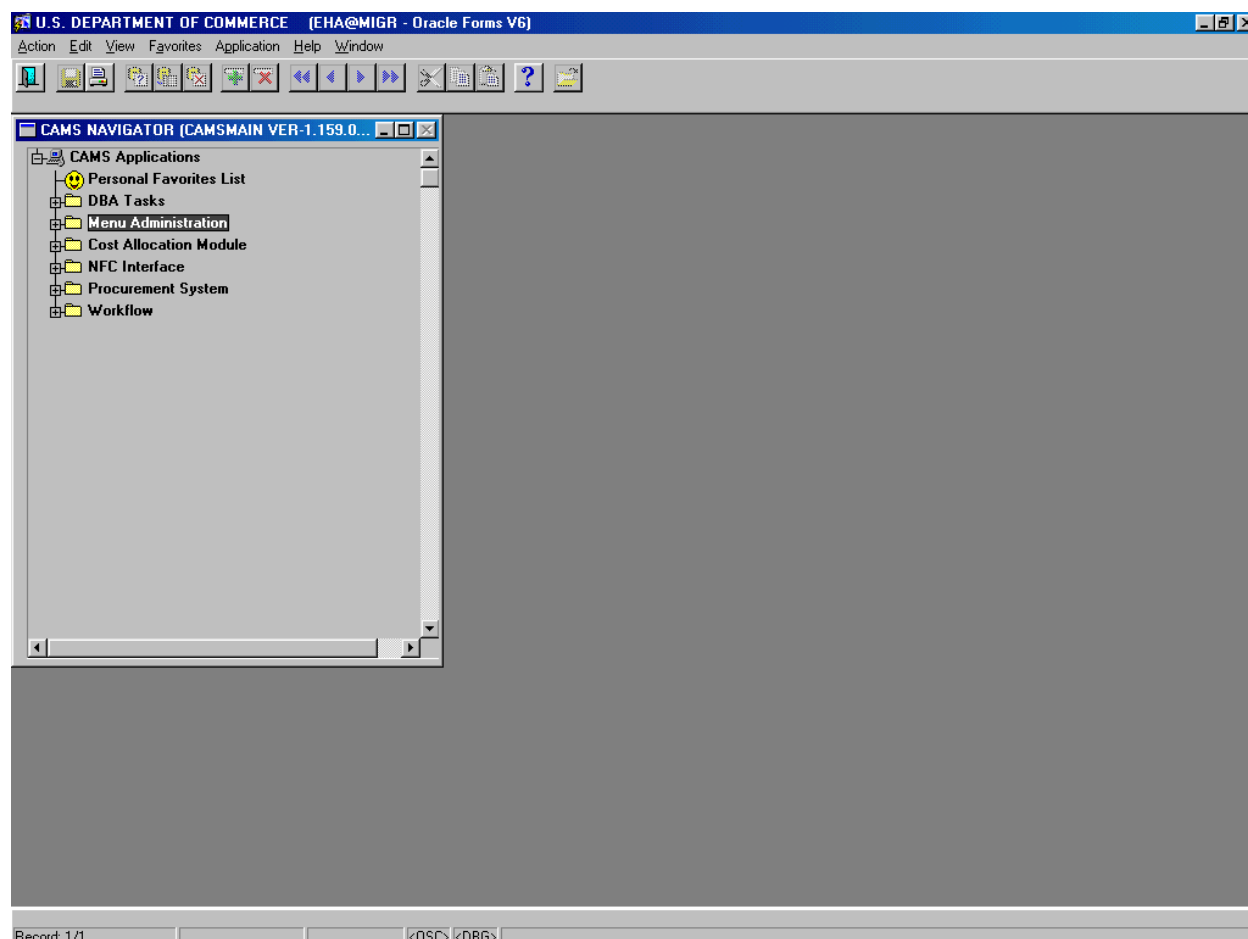


Figure 6: Navigator Showing Initial Menu Bar

When an application is selected from the Application menu option, the options on the menu bar will change to reflect the next level of menu options. Once again, there is a limitation on the number of items that can be expanded on the menu bar – it is four. Therefore, although the Navigator does not limit the number of submenu options to be defined, only the first four will appear on the menu bar. To appear on both the Navigator and the menu bar, the number of items must be limited to four.

Figure 7 reflects the expanded menu bar once the Procurement System application was selected from the Application menu option. This second level includes Transaction, Maintenance, Look Up, and Reports.

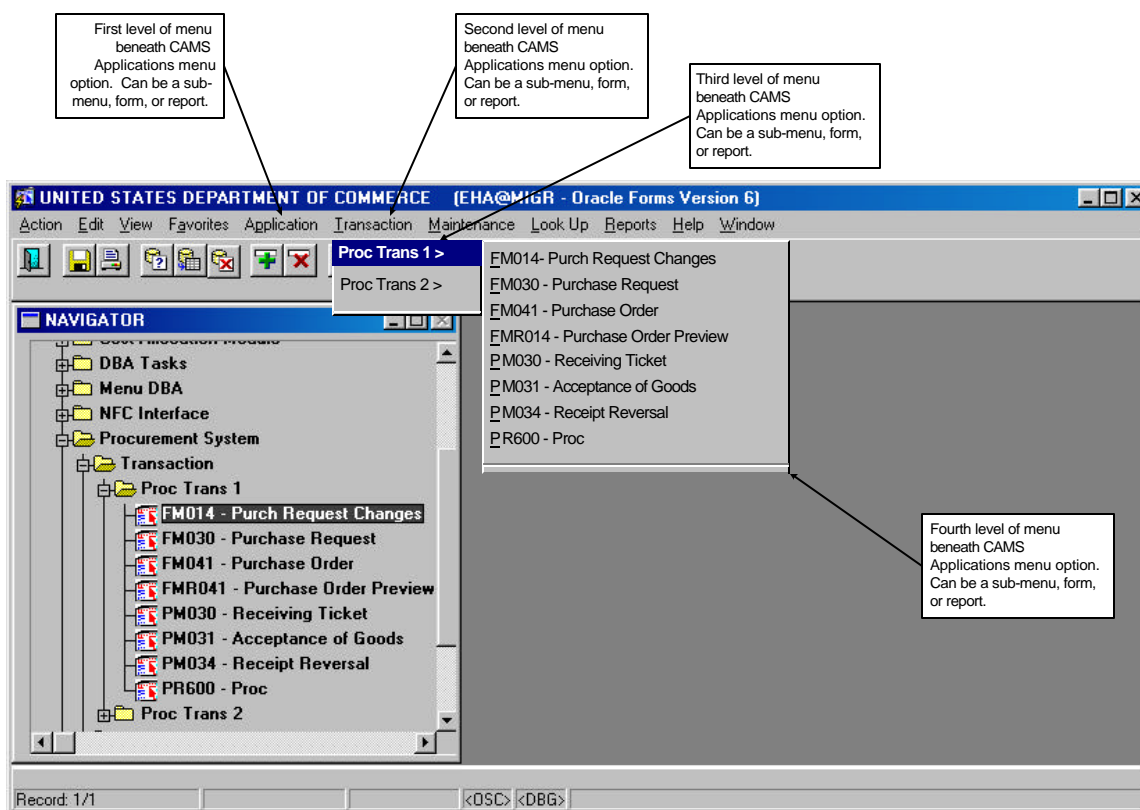


Figure 7: Navigator Showing Expanded Menu Bar

Selecting any of these menu options will display the third level of sub-menus or programs to be executed. There is a limitation of ten items that can be listed at this level. To appear on both the Navigator and the menu bar, the number of items in the third level of sub-menus must be limited to ten.

Should a fourth level be present, the menu option will have a ► symbol next to it and a pull-down menu will display the items at this level. The limitation at this level is fifteen. To appear on both the Navigator and the menu bar, the number of items in the fourth level of sub-menus must be limited to fifteen.

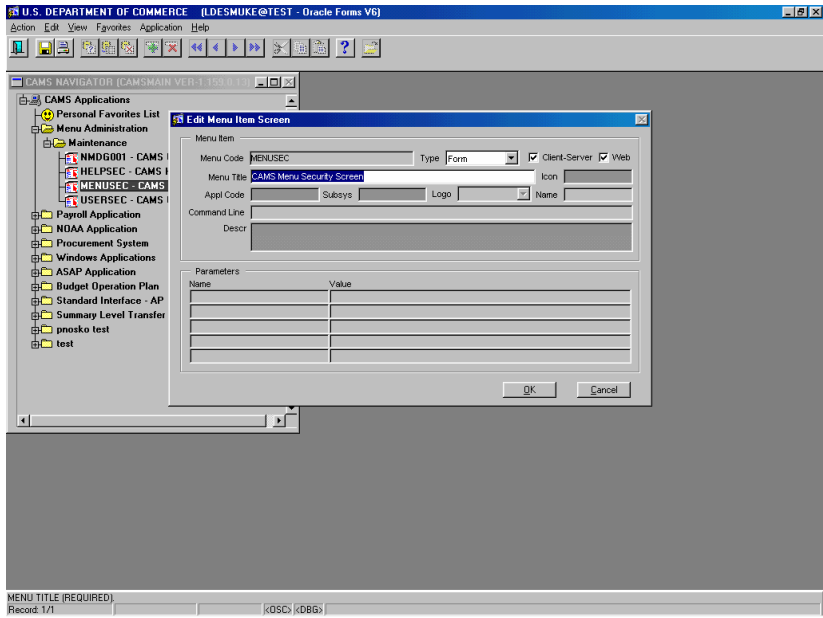
8. Web Mode

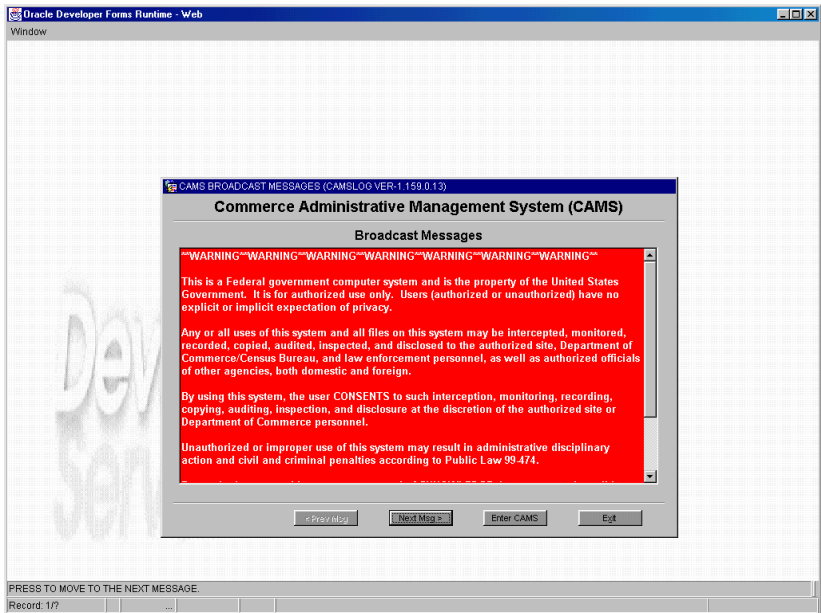
The CAMS Navigator Menu has been engineered to allow for use over the World Wide Web (WWW). This functionality will allow the use of CAMS in multiple locations with different configurations. To use the CAMS Navigator over the web a number of conditions must be met by the host and client systems. To use the CAMS Navigator over the web, a user must access the Web Server through a URL specified by their Menu Administrator.

8.1 Using Web Mode

8.1.1 Menu Administration

To enable a certain form to work via the web, the menu administrator must web-enable the individual form on the Edit Menu Item Screen.

Action	Explanation/Result
<p>To allow web use of a CAMS Form:</p> <p>Click on the checkbox that corresponds with web mode.</p>	<p>The 'Client-Server' and 'Web' checkboxes allow a menu administrator to specify the way(s) the navigator menu may be accessed.</p> 
	<p>Forms that are enabled for only client-server will not appear to non-menu administrators in web-mode. The opposite effect is true of client server, in that a form that is enabled for web only will not appear to non-menu administrators in client-server.</p> <p>NOTE: If a user is granted administration privileges to a certain form, the user will always be able to view and edit that item on their tree, regardless of their CAMS access method.</p>

Action	Explanation/Result
<p>To access the CAMS Navigator Menu via the web:</p> <p>Access the URL specified by your menu administrator.</p> <p>View the CAMS messages and logon to the system as you normally would in client-server.</p>	<p>All logon procedures are used in the web mode, including the CAMS start-up messages.</p> 
	<p>Once logged on you may run any web-enabled CAMS forms.</p> <p>NOTE: At this time, most CAMS forms are not web-enabled. However, all CAMS Navigator Menu screens have been web-enabled.</p>

9. Navigator Menu Developer Features

9.1 Reserved Global Variables

The following global variables are reserved for use by CSC-maintained Navigator Menu software. These values make up the user's execution environment. Altering these variables to unexpected values will cause unexpected behavior and results.

Global Variables		
ACTIVE_STATUS	APPL_MENU_ID	APP_MENU
CALLING_FORMX	CAMSCAL_DATE_VALUE	CAMS_MENUS_ROOT_MENU_ID
CAMS_MENU_CODE	CAMS_ROLES_ROOT_ROLE_ID	CMD_END
CMD_SEPARATOR	CMD_START	CONNECT_STRING
CUR_X	CUR_Y	DEVICE_NAME
DOS_LOC	ED_COMMAND	ED_LOG_SUFFIX
ED_PREFIX	ED_REP_SUFFIX	ED_SEPARATOR
ED_START	EMP_BUREAU	EMP_FUND
EMP_NUMBER	EMP_ORG1	EMP_ORG2
EMP_ORG3	EMP_ORG4	EMP_ORG5
EMP_ORG6	EMP_ORG7	EMP_OVERRIDE_FLAG
EMP_PAYMENT_OFFICE_CODE	EMP_PROGRAM1	EMP_PROGRAM2
EMP_PROGRAM3	EMP_PROGRAM4	EMP_PROJECT
EMP_TASK	FAV_MAX	FAV_MENU
FIRST_NAME	FORM_SETTINGS	HELP_SCREEN
IMPORT_ROLLBACK_SEG_NAME	LEVEL1_MAX	LEVEL1_MENU
LEVEL2_MAX	LEVEL3_ITEM_MAX	LEVEL3_MENU_MAX
LEVEL4_MAX	LOGGED_ON	LOGIN_LOCATION
LOGON_TRIES	LOGO_FILE_NAME	LOGO_FILE_TITLE
LOGO_FILE_TYPE	MAINT_MODE	MDI_WINDOW_TITLE
MENUSEC_INVOKE_FORM_METHOD	MENUSEC_STATISTICS_OPTION	NM_PATH
OPERATING_SYSTEM	PASSWORD	PROGRAM_LOCATION
PS_ERASE	PURCHASE_CARD_SETTINGS	REFRESH_MENU
REPORT_SERVER_NAME	ROLE_NAME	ROLE_PASSWORD
RT_LOGIN	SCREEN_LOCATION	SESSION_SOURCE
SUBMIT_LOCATION	SUFFIX	TEST_MODE
USERNAME	USER_INTERFACE	USER_LOGIN
USER_NAME	USER_PASSWORD	VIEW_NAVIGATOR_OPTION

Figure 8: Global Variables

9.2 Navigator Menu User Exits

The Navigator Menu has been modified to provide a "user exit" feature (custom code to perform a desired function) for the bureaus. This feature provides a method for executing bureau written code before/after certain Navigator Menu events without requiring the Navigator Menu software to be modified. The Navigator Menu calls a procedure named "FORMS_SETTINGS" (in PL/SQL library CSLIBB1) before and/or after these events. This template library was developed by the CSC but is maintained by the bureaus. Each bureau can customize their procedure/library to meet their individual needs. Note, however, that the FORMS_SETTINGS procedure name and parameter list should not be modified. The FORMS_SETTINGS parameter may be modified to call custom code (user exits) to perform such functions as setting/resetting global variables, calling procedures/functions, making database calls, or performing other desired functionality.

Note that even though PL/SQL libraries cannot reference global variables directly, they can be indirectly referenced using the Forms "copy" builtin. For example, the code statement "COPY('YES','GLOBAL.active_flag');" will set a global variable named "active_flag" to value "YES". This functionality should be limited to short, efficient processes to minimize performance problems with the Navigator Menu.

For testing purposes, the CSC has added code to the template procedure that will trace the calls and display the value of the passed parameters via a pop-up window. Setting the CAMSMAN command-line parameter FORMS_SETTINGS=SHOW_PARMs in the shortcut properties will enable this trace.

9.2.1 FORM_SETTINGS Parameters

The FORM_SETTINGS procedure will be passed the following parameters, in the listed order.

9.2.1.1 p_form_settings

Properties: VARCHAR2: FORMS_SETTINGS command-line parameter value, up to 255 characters

9.2.1.2 p_event

Properties: VARCHAR2: "LOGON", "CALL_FORM", "CALL_RETURN", "OPEN_FORM/NO_SESSION", "OPEN_FORM/SESSION", "RUN_REPORT", "RUN_WINAPP" and "LOGOFF".

9.2.1.3 p_appl_code

Properties: VARCHAR2: "CAMS" for logon/logoff events, the menu code of the application folder for all other events.

9.2.1.4 p_menu_code

Properties: VARCHAR2: the menu code of the launched menu item (null for logon/logoff events).

9.2.1.5 p_menu_id

Properties: VARCHAR2: the menu id of the launched menu item (null for logon/logoff events).

9.2.2 Events

9.2.2.1 LOGON: Post Navigator Menu logon.

9.2.2.2 CALL_FORM: Prior to launching a form via the CALL_FORM built-in.

9.2.2.3 CALL_RETURN: Immediately after the CALLED form returns control to the Navigator Menu.

9.2.2.4 OPEN_FORM/NO_SESSION: Prior to launching a form via the OPEN_FORM built-in with the "NO_SESSION" parameter.

9.2.2.5 OPEN_FORM/SESSION: Prior to launching a form via the OPEN_FORM built-in with the "SESSION" parameter.

9.2.2.6 RUN_REPORT: Prior to launching a report menu item.

9.2.2.7 RUN_WINAPP: Prior to launching a Windows application.

9.2.2.8 LOGOFF: Prior to exiting the Navigator Menu.

9.3 Designing forms to run in QUERY-ONLY mode

The Navigator Menu will run forms in QUERY-ONLY mode when the user's role privileges for the menu item are set (in the MENUSEC form) to Query = ON and Update = OFF. With these settings (1) such forms are launched via the CALL_FORM built-in with the QUERY-ONLY parameter and (2) the Navigator Menu also passes a NAV_QUERY_ONLY parameter value set to "YES". Forms that need to be run in both QUERY-ONLY mode and UPDATE mode must have the NAV_QUERY_ONLY parameter defined and set to initial (default) value of "NO". This NAV_QUERY_ONLY parameter will allow the form to identify the mode in which it was executed. When a form is run in QUERY-ONLY mode, its default functionality will disable update features. However, customized features (ie triggers, procedures, and functions in forms and/or the database) that are executed can potentially update the database. Programmers must ensure that no database updates take place when running in QUERY-ONLY mode by including code that checks the value of the NAV_QUERY_ONLY parameter and prevents database updates when set to 'YES.'

9.4 Special Windows 2000 Considerations

In Windows 2000 systems, Forms requires that .PLL files be converted into .PLX files. This is not true with Windows 98 systems, as Forms will accept a .PLL in place of a .PLX.

Oracle Client-Server Report Viewer cannot print to printers using PCL version 6. To print these reports you must use an earlier PCL version or a postscript driver.

Windows 2000 has a new 'Windows Standard' desktop appearance scheme, which causes forms backgrounds color inconsistencies. To resolve this issue, users may choose the 'Windows Classic' desktop appearance scheme.

10. File Inventory

This section contains two lists of files that will assist in maintaining Navigator Menu code. Figure 9 is a complete and accurate inventory of all files used by the Navigator Menu. Figure 10 contains files that may have been originally delivered with the Navigator Menu, but has subsequently become obsolete by modifications made since the original delivery.

10.1 Complete File Inventory

File Name	Extension	Title/Purpose
GUI 6.0 FORMS (.FMB)		
CAMSCAL	.FMB	CAMS Calculator Screen
CAMSLOG	.FMB	CAMS Logon Screen
CAMSMAN	.FMB	CAMS Startup Screen
CAMSMMSG	.FMB	CAMS Message Screen
CAMSQRY	.FMB	CAMS Query Screen
HELPSEC	.FMB	CAMS Help Desk Security Maintenance Screen
MENUSEC	.FMB	CAMS Menu Security Maintenance Screen
NMDG001	.FMB	CAMS Usage Statistics Screen
NMDG100*	.FMB	CAMS Usage Statistics by Application
NMDG101*	.FMB	CAMS Usage Statistics by Subsystem
NMDG102*	.FMB	CAMS Usage Statistics by Menu Item
USERSEC	.FMB	CAMS User Security Maintenance Screen
ICONS (.ICO)		
CS_CALC	.ICO	CAMS Windows Calculator (Window App)
CS_CANCQ	.ICO	CAMS Cancel Query (Toolbar)
CS_COPY	.ICO	CAMS Copy (Toolbar)
CS_CUT	.ICO	CAMS Cut (Toolbar)
CS_DOWN2	.ICO	CAMS Move Record Down (Sort)
CS_ENTRQ	.ICO	CAMS Enter Query (Toolbar)
CS_EXECQ	.ICO	CAMS Execute Query (Toolbar)
CS_EXIT	.ICO	CAMS Exit (Toolbar)
CS_FL	.ICO	CAMS Personal Favorites (Tree)
CS_FLDER	.ICO	CAMS Collapsed Folder (Tree)
CS_FRM	.ICO	CAMS Form Default (Oracle Form)
CS_HELP	.ICO	CAMS Help (Toolbar)

File Name	Extension	Title/Purpose
CS_LAST2	.ICO	CAMS Move Record to Bottom (Sort)
CS_MENU	.ICO	CAMS Expanded Folder (Tree)
CS_MSIE	.ICO	CAMS MS Explorer (Windows App)
CS_NETSC	.ICO	CAMS Netscape (Windows App)
CS_NXREC	.ICO	CAMS Next Record (Toolbar)
CS_NXSET	.ICO	CAMS Next Set (Toolbar)
CS_OPEN	.ICO	CAMS Put Navigator Window on Top (Toolbar)
CS_PASTE	.ICO	CAMS Paste (Toolbar)
CS_PRINT	.ICO	CAMS Print (Toolbar)
CS_PPREC	.ICO	CAMS Previous Record (Toolbar)
CS_PRSET	.ICO	CAMS Previous Set (Toolbar)
CS_RADD	.ICO	CAMS Record Add (Toolbar)
CS_RDEL	.ICO	CAMS Record Delete (Toolbar)
CS_RPT	.ICO	CAMS Report Default (Oracle Report)
CS_SAVE	.ICO	CAMS Save (Toolbar)
CS_SCHED	.ICO	CAMS Schedule Calendar (Message)
CS_SITE	.ICO	CAMS Applications (Tree)
CS_SORT	.ICO	CAMS Sort Alphabetically (Sort)
CS_TOP2	.ICO	CAMS Move Record to Top (Sort)
CS_UP2	.ICO	CAMS Move Record Up (Sort)
CS_WIN	.ICO	CAMS Windows Applications (Windows App)
GRAPHIC FILES (.JPG)		
CS_EXP	.JPG	CAMS Export Process Icon
CS_IMP	.JPG	CAMS Import Process Icon
CS_LOGO	.JPG	CAMS DOC Logo
GRAPHIC FILES (.GIF)		
CS_CANCQ	.GIF	CAMS Cancel Query (Toolbar)
CS_COPY	.GIF	CAMS Copy (Toolbar)
CS_CUT	.GIF	CAMS Cut (Toolbar)
CS_DOWN2	.GIF	CAMS Move Record Down (Sort)
CS_ENTRQ	.GIF	CAMS Enter Query (Toolbar)
CS_EXECQ	.GIF	CAMS Execute Query (Toolbar)
CS_EXIT	.GIF	CAMS Exit (Toolbar)

File Name	Extension	Title/Purpose
CS_FL	.GIF	CAMS Personal Favorites (Tree)
CS_FLDER	.GIF	CAMS Collapsed Folder (Tree)
CS_FRM	.GIF	CAMS Form Default (Oracle Form)
CS_HELP	.GIF	CAMS Help (Toolbar)
CS_LAST2	.GIF	CAMS Move Record to Bottom (Sort)
CS_MENU	.GIF	CAMS Expanded Folder (Tree)
CS_NXREC	.GIF	CAMS Next Record (Toolbar)
CS_NXSET	.GIF	CAMS Next Set (Toolbar)
CS_OPEN	.GIF	CAMS Put Navigator Window on Top (Toolbar)
CS_PASTE	.GIF	CAMS Paste (Toolbar)
CS_PRINT	.GIF	CAMS Print (Toolbar)
CS_PPREC	.GIF	CAMS Previous Record (Toolbar)
CS_PPREC	.GIF	CAMS Previous Set (Toolbar)
CS_RADD	.GIF	CAMS Record Add (Toolbar)
CS_RDEL	.GIF	CAMS Record Delete (Toolbar)
CS_RPT	.GIF	CAMS Report Default (Oracle Report)
CS_SAVE	.GIF	CAMS Save (Toolbar)
CS_SCHED	.GIF	CAMS Schedule Calendar (Message)
CS_SITE	.GIF	CAMS Applications (Tree)
CS_SORT	.GIF	CAMS Sort Alphabetically (Sort)
CS_TOP2	.GIF	CAMS Move Record to Top (Sort)
CS_UP2	.GIF	CAMS Move Record Up (Sort)
INITIALIZATION FILES		
CAMSMAN	.INI	Initialization File
BROADMSG	.XML	Broadcast Messages File
MENUS		
DOCMENU	.MMB	Department of Commerce CAMS Menu
CAMSMMSG	.MMB	CAMSMMSG Menu
LIBRARIES		
CALENDAR	.PLL	CAMS Pop-Up Calendar Library
CAMS_LIB	.PLL	CAMS Procedures Library
CSLIBB1	.PLL	CAMS Bureau Customizable Library
CSLIBPC	.PLL	CAMS Purchase Card Library

File Name	Extension	Title/Purpose
CSLIB02	.PLL	CAMS Procedures Library 2
CSOLB02	.OLB	CAMS Object Library
D2KWUTIL	.PLL	Oracle Windows Utility Library
D2KWUT60	.DLL	Oracle Developer 2000 Utility Library
SCRIPTS		
CAMS_NAV	.CON	CAMS Navigator Menu Constraints
CAMS_NAV	.IND	CAMS Navigator Menu Indexes
CAMS_NAV	.PKB	CAMS Navigator Menu Package Bodies
CAMS_NAV	.PKS	CAMS Navigator Menu Package Specifications
CAMS_NAV	.PRC	CAMS Navigator Menu Procedures
CAMS_NAV	.SQS	CAMS Navigator Menu Sequences
CAMS_NAV	.TAB	CAMS Navigator Menu Tables
CAMS_NAV	.TRG	CAMS Navigator Menu Triggers
CAMS_NAV	.VW	CAMS Navigator Menu Views
CAMS_PASSWORD_DICTIONARY	.SQL	CAMS Default Password Dictionary Word List
CAMSLOCK	.TBL	CAMSLOCK Script
EMPTRG	.SQL	EMPTRG Script
NAVDATA2	.TBL	CAMS Navigator Menu Data Script
PTCH713	.TBL	CAMS Patch 713
NAVPTCH741	.TBL	CAMS Navigator Menu Patch 741
NAVPTCH769	.TBL	CAMS Navigator Menu Patch 769
NAVPTCH803	.TBL	CAMS Navigator Menu Patch 803
NAVPTCH814	.TBL	CAMS Navigator Menu Patch 814
NAVPTCH821	.TBL	CAMS Navigator Menu Patch 821
NAVPTCH844	.TBL	CAMS Navigator Menu Patch 844
NAVPTCH871	.TBL	CAMS Navigator Menu Patch 871
NAVPTCH930	.TBL	CAMS Navigator Menu Patch 930
NAVUNDO2	.TBL	CAMS Navigator Menu Data Undo Script
DATA WAREHOUSE SCRIPTS		
DW_NAV	.SQL	CAMS Navigator Menu DW Script
DW_NAV_POST	.SQL	CAMS Navigator Menu DW Data Script
DW_NAV_UNDO	.SQL	CAMS Navigator Menu DW Undo Script

Figure 9: Complete File Inventory

* - These files have not been delivered.

10.2 Obsolete Files

File Name	Extension	Title/Purpose
ICONS (.ICO)		
CS_AR	.ICO	N/A
CS_CFS	.ICO	N/A
CS_DOWN	.ICO	N/A
CS_DS	.ICO	N/A
CS_DW	.ICO	N/A
CS_FIND	.ICO	N/A
CS_GROUP	.ICO	N/A
CS_HOUSE	.ICO	N/A
CS_LOCK	.ICO	N/A
CS_LONG	.ICO	N/A
CS_MATCH	.ICO	N/A
CS_PSET	.ICO	N/A
CS_ROOT	.ICO	N/A
CS_SI	.ICO	N/A
CS_TEAM	.ICO	N/A
CS_UP	.ICO	N/A
GRAPHIC FILES		
DOCSEAL	.GIF	DOC Logo
CS_EXPORT	.JPG	CAMS Export Process Icon
CS_IMPORT	.JPG	CAMS Import Process Icon
LIBRARIES		
NAVIGATE	.PLL	Navigate for View Pull-Down Menu Item
SCRIPTS		
CAMS_NAV	.FNC	CAMS Navigator Menu Functions
CAMS_NAV	.SQL	CAMS Navigator Menu SQL
NAVDATA	.TBL	N/A
NAVUNDO	.TBL	N/A

Figure 10: Obsolete Files

**CSC Standard System Configuration (As-Is)
(GUI Client-Server-Based)**

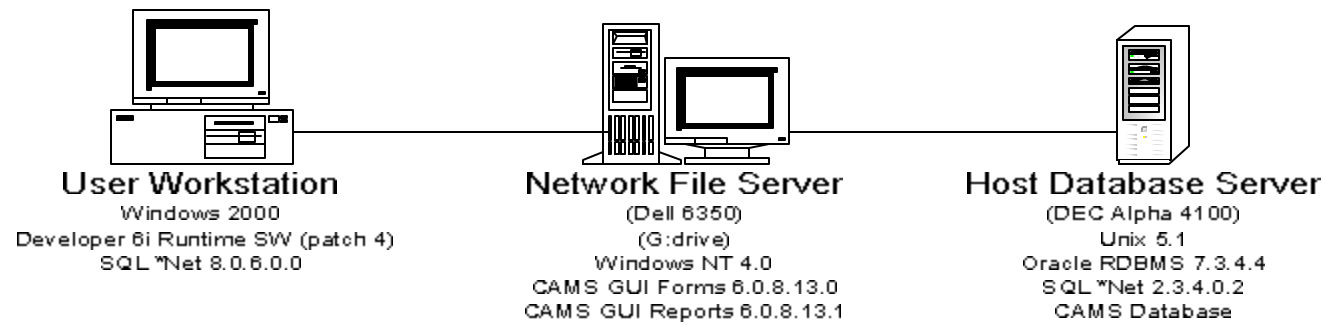


Figure 11: Client Server System Configuration

CSC Standard System Configuration (As-Is) (GUI Web-Based)

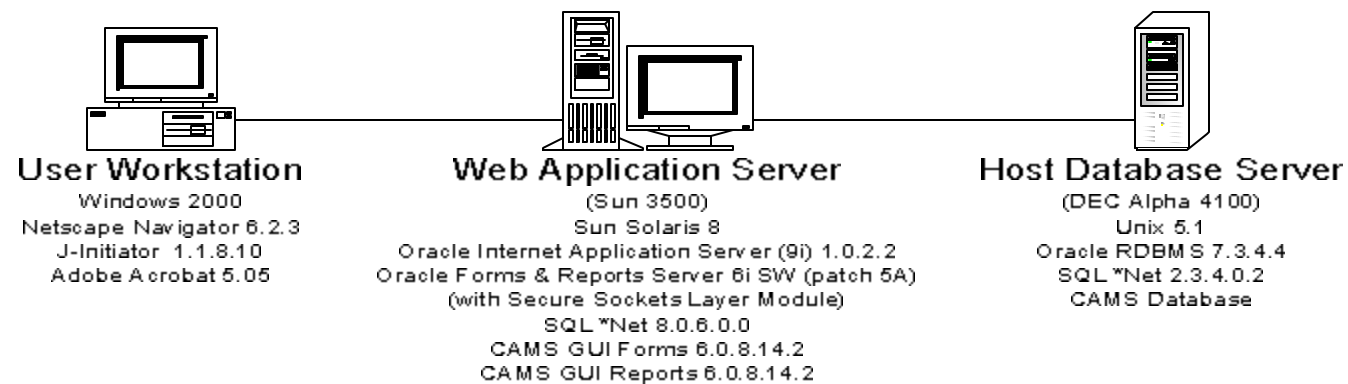


Figure 12: Web Based System Configuration